STATE OF CALIFORNIA GAVIN NEWSOM, *Governor*

PUBLIC UTILITIES COMMISSION
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SAN FRANCISCO, CA 94102-3298

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TO PARTIES OF RECORD IN APPLICATION 19-06-002:

This is the proposed decision of Administrative Law Judge Zita Kline. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's January 16, 2020 Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Pursuant to Rule 14.6(b), comments on the proposed decision must be filed within 13 days of its mailing.

The Commission may hold a Ratesetting Deliberative Meeting to consider this item in closed session in advance of the Business Meeting at which the item will be heard. In such event, notice of the Ratesetting Deliberative Meeting will appear in the Daily Calendar, which is posted on the Commission's website. If a Ratesetting Deliberative Meeting is scheduled, *ex parte* communications are prohibited pursuant to Rule 8.2(c)(4)(B).

/s/ ANNE E. SIMON

Anne E. Simon
Chief Administrative Law Judge

AES:avs

Attachment

Decision **PROPOSED DECISION OF ALJ KINE (Mailed 12/20/2019)**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Southern California Edison Company (U338E) For Approval of Its Forecast 2020 ERRA Proceeding Revenue Requirement.	Application 19-06-002

DECISION ADOPTING SOUTHERN CALIFORNIA EDISON COMPANY'S 2020 ELECTRIC PROCUREMENT COST REVENUE REQUIREMENT FORECAST AND 2020 FORECAST OF GREENHOUSE GAS-RELATED COSTS

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DECISION ADOPTING SOUTHERN CALIFORNIA EDISON COMPANY'S 2020 ELECTRIC PROCUREMENT COST REVENUE REQUIREMENT FORECAST AND 2020 FORECAST GREENHOUSE GAS-RELATED COSTS

Summary

This decision adopts a 2020 forecast electric procurement cost revenue requirement for Southern California Edison Company (SCE) and greenhouse gas (GHG) -related costs of $4,693.307 million.[1] We approve SCE's proposed allocation of costs between generation service and delivery service according to various balancing accounts, as outlined in this decision, for recovery from SCE's bundled service, direct access, community choice and community choice aggregation customers.

Within SCE's proposed generation service, we approve a total of $3,729.863 million in fuel and purchased power (F&PP) costs. We also approve SCE's balancing account transfers as follows: -$17.452 million for the 2019 Energy Resource Recovery Account Balancing Account (BA), $476.655 million for the Portfolio Allocation BA, $1.558 million for the Energy Settlements Memorandum Account.

Within SCE's proposed delivery service, we approve a total of $670.437 million in F&PP costs, consisting of the following: 1) $645.659 million for the New System Generation costs, 2) $4.382 million in spent nuclear fuel costs and $11.396 million for economic demand response programs and 3) $80.092 million for both the Tree-Mortality Non-Bypassable Charge and SCE's Preferred Resources Pilot #2. We also approve the following balancing account transfers: 1) $92.461 million for the New System Generation BA and 2) $71.457 million for the Tree Mortality Non-Bypassable Charge.

[1] Includes Franchise Fees and Uncollectibles (FF&U).

This decision also approves SCE's forecast GHG costs, revenues and requirements as modified in this decision, including $251.256 million in GHG Cap-and-Trade costs, 2020 GHG forecast auction proceeds of $453.575 million ($471.054 million net auction proceeds accounting for overcollections and FF&U), with $402.764 million being returned to customers after setting aside funding for clean energy and energy efficiency programs, outreach and administrative expenses. This decision authorizes the forecast amount of $39.34 per household for the California Climate Credit program to be returned to residential customers beginning in 2020.

We also adopt a total true-up of $31.795 million to account for the under-allocation of Senate Bill 92, Solar on Multifamily Affordable Housing program funding for Fiscal Years 2016-18, with an additional $5.648 million set aside from available GHG allowance revenue in the 2020 ERRA forecast. We direct SCE to set aside the remaining $26.147 million in SOMAH funding from available funding for Clean Energy and Energy Programs, pursuant to Pub. Util. Code § 748.5(c), in future ERRA forecast proceedings through 2030.

SCE's revenue requirements will be consolidated with the revenue requirement changes under other Commission decisions in the Annual Electric True-up process. The rate changes are effective upon approval of the Tier 1 advice letter filed in conformance with this Decision. This proceeding is closed.

1. Factual Background

In Decision (D.) 02-10-062, the Commission established the Energy Resource Recovery Account (ERRA), the power procurement balancing account required by Public Utilities (Pub. Util.) Code § 454.5(d)(3). Pursuant to Decision (D.) 02-10 062 and D.02-12-074, the purpose of the ERRA is to provide recovery of energy procurement costs, including expenses associated with fuel and

purchased power, utility retained generation, California Independent System Operator (CAISO) related costs, and costs associated with the residual net short procurement requirements to Southern California Edison's (SCE) bundled electric service customers.

The ERRA regulatory process includes: (1) an annual forecast proceeding to adopt a forecast of the utility's electric procurement cost revenue requirement and electricity sales for the upcoming year, (2) an annual compliance proceeding to review the utility's compliance in the preceding year regarding energy resource contract administration, least cost dispatch, prudent maintenance of Utility Owned Generation and the ERRA balancing account, and (3) the quarterly compliance report where Energy Division reviews procurement transactions "to ensure the prices, types of products, and quantities of each product conform to the approved plan."[2]

The Commission adopted the Cost Responsibility Surcharge in D.02-11-022 (as modified by D.03-07-030), which consists of the Competition Transition Charge (CTC). The CTC is used to recover the above-market costs of resources procured prior to market restructuring after the 2000-01 Energy Crisis.

In D.06-07-030 (as modified by D.07-01-030 and subsequently refined in D.11-12-018, D.14-10-045, D.18-10-019, and D.19-10-001), the Commission adopted the total portfolio methodology and market price benchmarks for determining the above-market costs associated with the utility/California Department of Water Resources (CDWR) Power Charge as an element of the Costs Responsibility Surcharge (CRS). The Power Charge Indifference Adjustment (PCIA) applies to departing load customers who are responsible for

[2] D.02-10-062 at 47, 50 and Conclusion of Law (COL) 7.

a share of the CDWR power contracts or new generation resource commitments. The PCIA is intended to ensure that departing load customers pay their share of the above-market portion of the CDWR contract and generation resource costs incurred on their behalf, and that bundled customers remained indifferent to customer departures.

The electric utilities were also required to incorporate GHG costs into the generation component of electricity rates through the ERRA process.[3] Incorporating the costs of GHG emissions into rates resulted in a carbon price signal intended to incent an overall decrease in energy consumption and reduction in GHG emissions.[4] Finally, the electric utilities were required to report and return annual GHG allowance revenues to eligible customers. Pursuant to Publ. Util. Code § 748.5(c), the Commission could allocate up to 15 percent of GHG allowance revenues for clean energy and energy efficiency projects which were approved by the Commission, but not funded by another source.

2. Procedural Background

On June 3, 2019, SCE filed its *Application of Southern California Edison Company (U338E) for Approval of its Forecast 2020 Energy Resource Recovery Account (ERRA) Proceeding Revenue Requirement* (Application) and served associated testimony, in which SCE requested the Commission approve its 2020 forecasted revenue requirement. Direct Access Customer Coalition (DACC) filed a response to the Application on July 3, 2019. The Public Advocates Office of the Public Utilities Commission (Cal Advocates) and California Choice Energy

[3] D.12-12-033; D.14-10-033.

[4] D.14-10-033.

Authority (CCEA) filed protests to the Application on July 3, 2019 and July 5, 2019, respectively.

On June 13, 2019, Resolution ALJ 176-3439 preliminarily determined that this proceeding was categorized as ratesetting and that hearings were necessary.

The assigned Administrative Law Judge (ALJ) Kline held a prehearing conference (PHC) on August 13, 2019 to discuss the scope of the proceeding and to address whether there was need for evidentiary hearings, as well as to develop a procedural timetable for the management of the proceeding. At the PHC, ALJ Kline granted party status to the Clean Power Alliance of Southern California (CPA) and Sunrun Incorporated (Sunrun).

SCE served supplemental testimony on September 13, 2019. SCE held a workshop to discuss its testimony on September 16, 2019.

Public Advocates Office and Sunrun served opening testimony on September 30, 2019 and October 1, 2019, respectively. SCE served rebuttal testimony on October 15, 2019. The assigned ALJ took evidentiary hearings off calendar by e-mail ruling on October 23, 2019.

SCE served updated testimony on November 8, 2019. ALJ Kline granted parties' request for an extension of time to file comments and briefs by e-mail ruling dated November 13, 2019. ALJ Kline granted a second request for an extension of time for parties to file briefs upon stipulation of a shortened comment period on the Proposed Decision, by email dated November 18, 2019. SCE, Public Advocates Office, Sunrun, as well as CPA and CCEA (jointly as the "SoCalCCAs") filed Opening Comments or Opening Briefs on November 22, 2019. Sunrun, SCE, Public Advocates Office and the SoCalCCAs filed Reply Comments or Reply Briefs on December 2, 2019.

3. Issues Before the Commission

The issues to be determined are:

1. Whether SCE's requested 2020 ERRA Forecast revenue requirement of $4,687.658 billion is reasonable, including but not limited to consideration of the following:
    a. SCE's forecast of electric sales and electric load;
    b. fuel and purchased power expenses;
    c. SCE's forecast Greenhouse Gas (GHG) costs; and
    d. Balancing Accounts such as the Portfolio Allocation Balancing Account (BA); New System Generation BA; Energy Settlements Balancing Account; and ERRA BA.
2. Whether SCE's forecast of GHG allowance revenue return allocations for energy-intensive trade-exposed customers, small business customers and the residential customer California Climate Credit is reasonable.
3. Whether SCE's forecast of GHG revenues and expenses set aside for 1) clean energy and energy efficiency programs and GHG administration, and 2) customer education and outreach plan costs is reasonable;
4. Whether the Cost Allocation Mechanism rates are reasonable;
5. Whether SCE's calculation of the PCIA and Competition Transition Charge rates are reasonable; including discussion of the following:
    a. Treatment of RA resources and associated costs in the PCIA;
    b. Treatment of Renewable Portfolio Standard (RPS) resources with excess RPS value and allocation of RPS sales across vintages;
    c. Whether the generation revenue allocators are consistent with the values adopted in SCE's General Rate Case (GRC) Phase 2, and whether they are reasonable; and

d. Whether the brown power market price benchmark value SCE uses to calculate the Brown Power True Up in the Portfolio Allocation BA is reasonable.

6. Whether SCE's ERRA forecast appropriately considers and incorporates the 2017 Tax Cuts and Jobs Act;
7. Whether SCE's request and methods used to determine the items above comply with all applicable rules,[5] regulations, resolutions and decisions for all customer categories;
8. Whether the Solar on Multi-Family Affordable Housing program is underfunded; and
9. Whether there are any safety considerations raised by this application.

The SoCalCCAs, Sunrun and Public Advocates Office disputed issues of law or fact in SCE's application, which are resolved in this decision. Section 5.3 addresses SoCalCCA's disputed issues with SCE's calculation of the 2019 Portfolio Allocation BA. Section 6.1 resolves the Public Advocates Office's dispute regarding SCE's recording of direct GHG in the New System Generation BA. Section 6.4.1 addresses Sunrun's dispute of whether the Solar on Multi-Family Affordable Housing program is underfunded.

Challenges to facts supporting SCE's proposed 2020 forecast of fuel and purchased power prices; natural gas prices; electricity prices; GHG costs and proceeds; demand response costs; bundled customer electric sales and year-end balancing accounts are waived by parties in this proceeding by virtue of stipulation to waive evidentiary hearing.

[5] All references to "Rule" or "Rules" in this decision refer to the Commission's Rules of Practice and Procedure.

4. 2020 Forecast Fuel and Purchased Power (F&PP) Costs and Forecast Methodology

SCE's forecast F&PP costs as associated with its UOG resources, purchased power contracts, financing and various carrying costs. SCE forecasts its 2020 total estimated F&PP revenue requirement at $4,687.658 million.[6] SCE forecasts its monthly retail sales for bundled service, Direct Access (DA), Community Aggregation (CA) and Community Choice Aggregation (CCA) customers for 2020 using econometric modeling, which considers factors such as historical trends in customer growth by county, the economic outlook as measured by housing starts and employment growth, weather assumptions and average system electricity rates.[7] SCE's preliminary forecast does not include the statewide increase in the DA load expected to start in 2020, but it includes CCAs[8] that meet the following criteria 1) filed a binding notice of intent to begin CCA service, 2) filed an initial Resource Adequacy (RA) filing, 3) started CCA service and 4) formally submitted an April RA forecast pursuant to Pub. Util. Code § 380.[9]

SCE predicts a 3.6 percent decrease in forecast bundled energy sales from 2019 to 2020, from a total retail sales forecast of 83,383 Gigawatt hours (GWh) in 2019 to 82,223 GWh in 2020.[10] At the same time, SCE forecasts an increase of

[6] Exhibit SCE-6-ERRATA V2 at 8.

[7] Includes consideration of electricity rates, energy savings from SCE's energy efficiency programs, state and federal building standards, self-generation, Building electrification and transportation electrification. (Exhibit SCE-01 at 10-17.)

[8] SCE included the following CCAs in its 2020 ERRA forecast: Lancaster Choice Energy, Apple Valley Choice Energy, Pico River Innovative Municipal Energy, CPA (Phases 1-5), Rancho Mirage Energy Authority, Western Community Energy, Desert Community Energy, Pomona, Baldwin Park, Palmdale and Hanford.

[9] Exhibit SCE-06 at 12.

[10] Exhibit SCE-01 at 10.

0.6 percent in total electricity customers from 5,159.092 million in 2019 to 5,192.394 million in 2020.[11] SCE's predicted decrease in retail sales is largely driven by a lower forecast in weather temperature and decreased sales due to the increase in behind-the-meter solar photovoltaic installations and increased energy efficiency.[12]

4.1. Utility Owned Generation (OUG) and Purchased Power Contracts – Hydroelectric, Combined Heat and Power (CHP), Solar Photovoltaic Program, Renewables, Natural Gas

SCE's UOG and purchased power contract resources consist of hydroelectric, fuel cells, CHP and renewable generation resources, nuclear, natural gas and battery storage. SCE's hydroelectric resources consist of 33 powerhouses with a 1,176 Megawatts (MW) nameplate capacity, which are organized into the Western[13] and Eastern[14] Divisions.[15] SCE forecasts a slightly-below-normal hydrological year for 2020 and incorporates planned outages for hydroelectric units.[16]

SCE's solar photovoltaic resources consist of the Solar Photovoltaic Program, which allows SCE to install, own and operate up to 91 MW of direct current (DC) solar photovoltaic projects in SCE's service territory.[17]

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[11] Exhibit SCE-06 at 13.

[12] Exhibit SCE-01 at 10.

[13] The Western Division, known as the Big Creek and Southwest Production areas, consist of nine powerhouses in the western Sierra Nevada Mountains.

[14] The Eastern Division consists of 24 powerhouses in the eastern and southern Sierra Nevada Mountain, the San Bernardino Mountains and San Gabriel Mountains.

[15] Exhibit SCE-06 at 24.

[16] *Id*. at 25.

[17] *Ibid*.

SCE's CHP and renewables projects resources consist of 312 projects delivering 11,292 MW of contract capacity, which includes 1,155 MW of CHP capacity and 10,137 MW of renewable capacity.[18] In addition, SCE contracted for 246.7 MW of additional dispatchable capacity through the CHP Program Settlement requests for offers.[19]

SCE's CHP and renewables projects include biomass, cogeneration, geothermal, small hydroelectric, solar and wind resources.[20] Between September 2019 and December 2020, SCE forecasts 28 new projects will begin service, providing an aggregate of 1,530 MW of capacity.[21]

SCE's natural gas resources consist of five black-start capable peakers owned by SCE and the Mountainview Generating Station. The five black-start capable peaker units have with a total capacity of 245 MW.[22] Natural gas costs incurred by the five peakers are included in the ERRA forecast, while the capacity and non-fuel variable costs associated with these peakers are included in SCE's GRC revenue requirement.[23]

The Mountainview Generating Station transferred ownership from the Mountainview Power Company, LLC, a wholly owned subsidiary of SCE, to SCE on July 1, 2009, and its transfer was approved in D.09-03-025 as part of SCE's 2009 GRC.[24] SCE requests recovery for the Mountainview Generating Station

[18] *Id*. at 26.

[19] *Ibid*.

[20] *Id*. at 27.

[21] *Id*. at 26.

[22] *Id*. at 29.

[23] *Ibid*.

[24] *Ibid*.

costs in this ERRA forecast pursuant to D.18-10-019[25] through the Portfolio Allocation BA.[26]

4.2. Interagency Contracts

SCE executed two inter-utility contracts with dispatchability, which affects forecast F&PP costs in 2020. For 2020, SCE has an entitlement of 280.245 MW of contingent capacity and 238.16 GW of firm energy through a contract with the Western Area Power Administration (WAPA) and the Bureau of Reclamation from power generated by the Hoover Dam.[27] However, SCE forecasts a monthly capacity and firm energy of as low as 148 MW and 10 GWh due to the lowered surface elevation of Lake Mead, the forebay of the Hoover Dam.[28]

SCE also purchases power from the City of Pasadena from the 3 MW Azusa Powerhouse, which SCE transferred to the City of Pasadena through a Corporation Grant Deed. The Corporation Grant Deed requires the City of Pasadena to deliver the entire electrical output of the Azusa Powerhouse to SCE, and the City of Pasadena has 12 months from the time of delivery to request the same amount of energy.[29]

4.3. New System Generation Contracts

In D.06-07-029, as modified by D.10-12-035 and Senate Bill (SB) 695, the Commission adopted a Cost-Allocation Mechanism (CAM) to allocate the costs electric utilities incur to meet RA requirements on behalf of customers in an electric utility's service territory. In D.10-12-035, the Commission also allowed

[25] D.18-10-019 removed the 10-year limitation on costs recovery for operation of the Mountainview Generating Station.

[26] Exhibit SCE-06 at 29.

[27] *Id*. at 30.

[28] *Id*. at 30-31.

[29] *Id*. at 31-32.

SCE to allocate costs associated with CHP generation procured on behalf of direct access customers' Electric Service Providers and Community Choice Aggregators.

SCE forecasts 2020 fuel and purchased power costs associated with three types of new generation resources: 1) its 2006-2007 CAM Contracts, 2) Generic and Bilateral contracts to meet 2020 system capacity requirements, and 3) contracts used to meet local capacity requirements. With regard to the 2006-2007 CAM contracts, SCE procured certain contracts pursuant to D.07-09-044, and plans to hold the dispatch rights for these contracts in 2020. The energy from these contracts is not used to meet bundled load, and the net capacity costs[30] will be allocated to benefitting customers through the CAM.[31]

SCE also forecasts F&PP costs from generic and bilateral contracts it procured to meet system capacity needs in 2020. Finally, SCE's forecasts F&PP costs associated with Local Capacity Requirement (LCR) solicitations in the Western Los Angeles[32] and Moorpark[33] subareas.[34] SCE proposes to record the costs of fuel and purchased power for all new generation contracts in the New System Generation BA, and apportion the energy revenue benefits and costs of these resources to all bundled and departing load customers based on their share of the load using CAM.

Public Advocates Office opposed recording the direct GHG component of F&PP costs to the New System Generation BA, as discussed in section 6.1 of this

[30] The net capacity costs are the net of estimated expected revenue and production costs

[31] Exhibit SCE-01 at 37.

[32] D.15-11-041.

[33] D.16-05-050.

[34] Exhibit SCE-06 at 33.

decision. No other parties objected to SCE's proposed F&PP procurement-related forecast costs, or forecast methodology.

4.4. Public Purpose Program Charges - Preferred Resources Pilot #2 and Tree Mortality Non-Bypassable Charge

SCE requests a revenue requirement for two Public Purpose Programs. First, SCE requests a forecast revenue requirement electrical energy, capacity and renewable attributes contracted through its Preferred Resources Pilot #2.[35] Forecasted monthly in-front-of the meter energy costs from the PRP are incorporated into the F&PP forecast.[36] Behind-the-meter LCR resources[37] from the PRP reduce the overall bundled load requirement.

Second, SCE requests a revenue requirement associated with 2020 forecast costs for net costs incurred from contracts for biomass procured pursuant to D.18-12-003, and recoverable through the Tree Mortality Non-Bypassable Charge. SCE forecasts a 2020 revenue requirement of $80.092 million for the both the PRP #2 and the Tree Mortality Non-Bypassable Charge.[38]

4.5. Green Tariff Shared Renewables Program (GTSR)

In 2015, the Commission established the GTSR program pursuant to Sections 2831-2833 of the California Public Utilities Code.[39] The GTSR program provides customers with two options for obtaining a greater mix of renewable energy. Under the Green Tariff option, customers may choose either a 50 percent or 100 percent option for the mix of renewable energy with a corresponding increase in their generation rate. Under the enhanced community renewables

[35] *Id*. at 34.

[36] *Ibid*.

[37] The PRP includes behind-the-meter energy storage contracts.

[38] Exhibit SCE-06 at 8.

[39] D.15-01-051.

option, customers may support local renewable energy project agreements with third-party developers.

SCE forecasts 3,552,537 KWh of participation through the GTSR program.[40] SCE proposed to track the costs of GTSR through the GTSR BA.

Upon review, the Commission finds SCE's 2020 forecast calculation for the GTSR reasonable and in compliance with D.15-01-051.

4.6. Nuclear

SCE has an ownership interest in the San Onofre Nuclear Generating Station (SONGS), a nuclear power facility which ceased operations in 2013, and the Palo Verde Nuclear Generating Station (PVNGS), a nuclear power facility operated by the Arizona Public Service.[41] SCE forecasts $4.232 million in costs for interim spent fuel storage costs at SONGS in 2020.[42] SCE forecasts $44.2 million in nuclear fuel expenses and $36,231 in interim used fuel storage charges at PVNGS.[43]

4.7. Catalina Fuel Costs

SCE forecasts a total fuel cost of $7.895 million to provide electricity service to Santa Catalina Island using six diesel generators and 23 propane-fired micro-turbines at the Pebbly Beach Generating Station.[44] The fuel costs forecast includes $6.711 million for diesel fuel based on a forecast use of 51,786 barrels of

[40] Exhibit SCE-06 at 35.

[41] *Id*. at 35-36.

[42] Exhibit SCE-06 at 40.

[43] *Id*. at 37,40.

[44] Exhibit SCE-01 at 45-46; Exhibit SCE-02 at 67.

diesel at an average commodity costs of $128.21 per barrel.[45] SCE also forecasts $1.184 million for propane costs to operate the microturbines in 2020.[46]

4.8. Demand Response

SCE forecasts a total cost for 5 GW of energy reductions in 2020 provided by economic demand response programs, including the Summer Discount Plan, Capacity Bidding Program, Critical Peak Pricing, and Smart Energy Programs.[47] SCE does not include the costs associated with demand response programs that provide reliability, which are programs that require participants to reduce their load in response to a forecast or actual system emergency.[48] SCE records the cost of all demand response incentives in the Demand Response Program BA pursuant to D.17-12-003, which is a subaccount of the Base Revenue Requirement Balancing Account.[49]

4.9. California Independent System Operator (CAISO) Costs, Load Procurement and Portfolio Allocation BA Energy Revenue

The forecast CAISO cost is the net cost of the following: grid management charges, Federal Energy Regulatory Commission fees, Congestion Revenue Rights auction related CAISO costs, ancillary services, CAISO uplist costs, Standard Capacity Product costs, and other non-energy related CAISO costs.[50] The forecast load procurement cost is the cost of procuring load, estimated by multiplying the hourly load by the SP 15 prices for the corresponding hour.[51]

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[45] *Id*. at 45, 87.

[46] *Id*. at 46,87.

[47] *Id*. at 47.

[48] *Id*. at 46.

[49] *Id*. at 47.

[50] *Ibid*. at 48.

[51] *Ibid*.

The forecast Portfolio Allocation BA procurement charges are the forecast energy revenue from dispatch of the Portfolio Allocation BA portfolio, which is estimated by multiplying the total Portfolio Allocation BA portfolio supply by the SP15 price.[52]

4.10. Hedging Costs

SCE's forecast hedging costs include energy-related transaction fees and option premiums for hedging SCE's open energy position in 2020.[53]

4.11. Gas Transportation and Storage

SCE forecasts $1,200 of costs associated with natural gas delivery to SCE's UOG fuel cells at UC Santa Barbara and California State University at San Bernardino.[54] SCE also forecasts costs associated with transportation of natural gas to the Mountainview Generating Station along with delivery to the SCE Barre, Center, Grapeland, McGrath and Mira Loma peakers.[55] SCE does not anticipate purchasing storage of natural gas in the Aliso Canyon storage facility from SoCalGas.[56]

4.12. Financing Costs

SCE has a $3 billion multi-year revolving credit facility, also called the "revolver," to serve short-term borrowing requirements.[57] SCE plans to extend its credit facility in 2020 by exercising a one-year extension option. Forecast costs associated with extending the credit facility include 1) upfront costs and fees for the extension, 2) $20,000 administrative fee, 3) 17.5 basis point annual facility fee,

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[52] *Id*. at 48.

[53] Exhibit SCE-06 at 43.

[54] *Id*. at 44.

[55] *Ibid*.

[56] *Id*. at 43.

[57] *Id*. at 45.

4) 107.5 basis point participation fee on any outstanding letters of credit, 5) 20 basis point issuer fee on any letters of credit, and 6) London Inter-Bank Offered Rate plus 107.5 basis points borrowing (loan) rate. SCE forecasts using the revolver to provide capacity for collateral and supporting balancing accounts.[58] SCE proposes to record revolver-related and fees and upfront costs in the ERRA BA, Portfolio Allocation BA, and/or the New System Generation BA accounts along with the appropriate interest rates; and to recover the remaining revolver-related fees and upfront costs, associated with corporate borrowing, through base rates.[59] The revolver includes an option to increase the credit limit, which SCE may exercise.

SCE previously issued a $100 million bond to support financing the minimum balance of its fuel inventories.[60] SCE paid $552,000 in issuance costs and expenses for this bond in 2018, and the bond will mature in March 2021.[61]

In 2020, SCE proposes to use $3 billion commercial paper program to finance fuel inventories in excess of the amount in the $100 million fixed rate bond.[62] In addition, SCE also proposed to provide collateral to counterparties in the form of letters of credit rather than cash; fees associated with letters of credit will be charged to the ERRA BA, Portfolio Allocation BA and/or New System Generation BA.[63]

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[58] *Id*. at 46.

[59] *Id*. at 46.

[60] *Id*. at 47.

[61] *Ibid*.

[62] *Ibid*.

[63] *Id*. at 48.

4.13. Carrying Costs - Fuel Inventory, GHG Compliance and Collateral

SCE forecasts fuel inventory carrying costs for nuclear, natural gas, diesel and propane.[64] SCE also forecasts GHG procurement compliance carrying costs for 2020, which SCE estimates using historical GHG inventory balances and the ERRA BA interest rates.[65] Finally, SCE forecasts the carrying costs associated with SCE's collateral requirements necessary to procure power.[66] SCE proposes to recover its carrying costs through the ERRA BA, Portfolio Allocation BA, and New System Generation BA.[67]

5. Balancing Account True-Ups

SCE's F&PP revenue requirements are recorded in a number of balancing accounts, with associated subaccounts. SCE's Application requests to true-up 2019 year-end balances in the following accounts: 1) the ERRA BA, 2) Energy Settlements Memorandum Account (MA), 3) Portfolio Allocation BA 4) the New System Generation BA and the 5) Tree Mortality Non-Bypassable Charge BA, as summarized below.[68]

Table 5-1. Summary of 2019 and 2020 BA True-Ups in ERRA Forecasts (millions).

Forecast Revenue Requirement True Up	2019 ERRA	2020 SCE Proposed and Adopted
ERRA BA	$743.429	-$17.452
Energy Settlements MA	-$28.221	$1.558
Portfolio Allocation BA	--	$476.655

[64] *Id*. at 49.

[65] *Id*. at 50.

[66] *Ibid*.

[67] *Id*. at 49.

[68] *Id*. at 6.

New System Generation BA	-$73.503	$92.461
Tree Mortality Non-Bypassable Charge BA	--	$71.457

The ERRA BA true-up is discussed in Section 5.1. The Energy Settlements MA true-up is discussed in Section 5.2. The 2019 Portfolio Allocation BA true-up is discussed in Section 5.3. The New System Generation BA true-up is discussed in Section 5.4. The Tree Mortality Non-Bypassable Charge is discussed in Section 5.5. The Portfolio Allocation BA and the Tree Mortality Non-Bypassable Charge BA are included in SCE's ERRA Forecast for the first time in this Application.

5.1. 2019 ERRA BA True-Up

The ERRA BA records the difference between the ERRA-related revenue requirement and SCE's F&PP expenses for bundled service customers in the prior year. SCE estimates a $17.452 million overcollection as of December 31, 2019 in the ERRA BA.[69]

A portion of the refund comes from the $54.477 million revenue returned as a result of Commission approval of SCE's 2017 ERRA compliance application in D.19-10-039. This revenue return will be credited to SCE's bundled service customers and 2017 vintage departing load customers on a pro-rata basis.[70] SCE's bundled service customers receive a pro-rata credit in the ERRA BA.[71] SCE also proposes to transfer its 2019 year-end balance of $17.452 million from the ERRA BA to the 2019 vintage year Portfolio Allocation BA subaccount, and

[69] *Id*. at 6.

[70] *Id*. at 85.

[71] *Ibid*.

include those costs in its 2019 vintage Portfolio Allocation BA subaccount revenue requirement.[72]

The SoCal CCA's request SCE apply a $532 million 2019 ERRA BA credit to 2020 vintage year departing load customers, reducing the 2020 vintage customer PCIA rate to $0.01232/kWh.[73] In response, SCE states that transferring the 2019 vintage year Portfolio Allocation BA results in a credit to 2020 vintage year departing load customers and stated the ERRA BA overcollection is not the opposite of the Portfolio Allocation BA undercollection because they include different components.[74] SCE is unclear about how the SoCal CCA's calculated an ERRA BA overcollection of $532 million.[75]

Upon consideration, this decision finds SCE's transfer of the 2019 ERRA BA balance to the 2019 vintage Portfolio Allocation BA subaccount for 2019 vintage customers reasonable. This decision approves SCE's proposal to true-up the 2019 ERRA BA as proposed by SCE.

5.2. 2019 Energy Settlements MA True-Up

The Energy Settlements MA tracks refunds from generators who overcharged SCE for electricity during the 2000-01 California Energy Crisis. The Litigation Costs Tracking Account (TA) is a subaccount in the Energy Settlements MA which tracks litigation costs "set-aside" in Federal Energy Regulatory Commission investigation settlement agreements and actual litigation costs incurred by SCE. SCE estimates a 2019 year-end balance of $0 in

[72] *Id*. at 85.

[73] SoCalCCAs Opening Comments at 8-9, *citing* Exhibit SCE-06 at B-5.

[74] SCE Reply Brief at 12.

[75] *Id*. at 12.

the Energy Settlements MA and an undercollection of $1.558 million in the Litigation Costs TA.[76]

No parties opposed or commented on SCE's Energy Settlements MA and Litigation Costs TA balance in the November Update. Upon consideration, the Commission finds SCE's proposed 2020 Energy Settlements MA and Litigation Costs TA 2019 year-end balance transfer is reasonable.

5.3. 2019 Portfolio Allocation BA True-Up

The main components of an electric utilities' market portfolio are its energy value, the renewable energy value and the resource adequacy (RA) value; these components are used to calculate the PCIA.[77] In D.18-10-019, the Commission adopted a mechanism to true-up an electric utility's forecast and recorded market revenues with the goal of making the PCIA indifference amount more accurate.[78] The Commission ordered the large electric utilities to track the difference between forecast and recorded market portfolio values in their respective Portfolio Allocation BAs.[79]

In October 2019, the Commission refined the PCIA methodology and ordered a true-up of 2019 Portfolio Allocation BA in the electric utilities' 2020 ERRA forecast November Update testimony.[80] The 2019 ERRA Forecast and

[76] Exhibit SCE-01 at 89; Exhibit SCE-06 at 6.

[77] *See* D.18-10-019 at Appendix 1.

[78] Prior to this decision, the PCIA was set using forecast volumes multiplied by benchmark values for 1) the energy, 2) the RA and 3) renewable portfolio system (RPS) in a utility's market portfolio.

[79] D.19-10-018 at 158 (Finding of Fact 17).

[80] D.19-10-001 at 55-56 (Ordering Paragraph (OP) 3).

2019 ERRA True-Up Market Price Benchmarks[81] are summarized in the table below.

Table 5-2. Summary of 2019 Forecast and 2019 True-up Market Price Benchmarks.[82]

Market Price Benchmarks	2019 ERRA Forecast November 2018	2019 ERRA True-Up November 2019
Energy Index	$41.97/MWh	Not Applicable (N/A) (use actuals)
RPS Adder	$18/MWh	$16.44 MWh
RA Adder • System • Local • Flexible	 • $37.08/kW-yr • $37.08/kW-yr • N/A	 • $33.24/kW-yr • $44.64/kW-yr • $33.36/kW-yr

SCE began tracking costs in the Portfolio Allocation BA in January 2019.[83] SCE's 2020 ERRA forecast is the Commission's first review of the PCIA true-up mechanism for the Portfolio Allocation BA. SCE requests a $476.655 million true-up of the 2019 Portfolio Allocation BA through 2020 PCIA rates, as summarized in the table below.

Table 5-3. SCE Proposed 2019 Portfolio Allocation BA True-Up Allocation.[84]

	Vintage CTC	One Time Refunds	Legacy UOG	2004-2019 Vintages
Portfolio Costs	$174,743,274	$0	$560,613.993	$3,163,661,305
Billed Customer Revenue	-$35,668,543	$46,865,731	-$143,028,713	-$794,440,435
Energy Value	-$68,188,420	$0	-$285,048,640	-$684,305,849
RA Value	-$31,469,250	$0	-$6,726,219	-$385,310,902

[81] A Market Price Benchmark is an estimate of the value per unit associated with three principal sources of value in a utility portfolio. (D.19-10-001 at 6.)

[82] Exhibit SCE-06 at 95 (Table X-48).

[83] *Id*. at 93.

[84] *Id*. at 96.

Other Resource Revenue	-$8,964,459	$0	-$50,859,513	-$270,481,714
One-Time Adjustments	$0	$0	$0	-$44,301,347
Interest	$0	-$70,340,465	-$85,003,283	-$66,995,338
RPS True-Up Entry	$236,654	$93,447	-$1,253,501	$3,715,219
RA True-Up Entry	$8,635,637	$0	$1,845,776	$105,735,122
Year End Balance Forecast	-$6,8213	$0	-$387,006	-$2,058,178
FF&U	$7,389	$0	$1,258	$89,422
Total Year End Balances	**$39,710,976**	**$9,444,325**	**$9,957,914**	**$417,541,922**

A $476.655 million undercollection in the Portfolio Allocation BA raises PCIA rates for departed load customers. The SoCalCCA's object to various elements of the 2019 Portfolio Allocation true-up. We consider the SCE and SoCalCCA's positions regarding the 2019 Portfolio Allocation BA true-up below.

Section 5.3.1 discusses the energy value of SCE's 2019 market portfolio. Section 5.3.2 discusses the RPS value of SCE's portfolio. Section 5.3.3 discusses the RA value of SCE's portfolio. Section 5.4.4 discusses SCE's billed energy revenues in 2019. Section 5.3.5 discusses other true-ups incorporated into SCE's 2019 Portfolio Allocation BA true-up.

5.3.1. Energy Value

The energy value of a utility portfolio is the estimated financial value that is attributed to the energy component of a utility portfolio.[85] The current methodology for calculating the energy value is as follows:

Forecast Energy Value = *($41.97/MWh Energy Index) x (Forecast Transacted Volume)*

True Up Energy Value = ∑*(Actual Transacted Prices) x (Actual Transacted Volume)*

[85] D.19-10-001 at 6.

SCE contends the undercollection of $476.655 million in the 2019 Portfolio Allocation BA true-up occurred primarily as a result of a $405.290 million variance between forecast and actual energy revenues in 2019. SCE argues the 2019 forecast Energy Index of $41.97/MWh set the energy value of SCE's market portfolio too high, and SCE's actual energy revenue in 2019 was substantially lower due to lower CAISO market prices, resulting from milder weather and reduced pipeline constraints compared to the 2018 record year.[86]

Based on the SCE's November Update testimony and workpapers, the SoCalCCAs calculate SCE's average actual energy price is $30/MWh. They object to SCE's reported values as suspect, considering the average SP15 prices year-to date for 2019 are ~$36/MWh.[87] Recalculating SCE's 2019 Energy Value using a $36/MWh average price, the SoCalCCAs estimate SCE's Portfolio Allocation BA balance should be reduced by $212.9 million.[88]

On response, SCE explains that its actual average revenue is $30.50/MWh, largely because SCE's "largely non-dispatchable, renewable heavy, PCIA eligible portfolio resources do not average CAISO market revenues because of their delivery profiles (*e.g.*, solar in the middle of the day and wind in the night).[89] SCE provides its weighted average day-head market revenues by resource type, as summarized in the table below:

[86] Exhibit SCE-06 at 97,99.

[87] SoCalCCA's Joint Opening Brief at 2.

[88] *Id*. at 2.

[89] SCE Reply Brief at 6.

Table 5-4. SCE Reported Weighted Average Day-Ahead Revenues by Resource Type.[90]

Technology	Weighted Average Day-Ahead Market Revenue ($/MWh)
Gas	45.79
BioGas/BioMass	34.83
Geothermal	33.40
Other	33.37
Nuclear	32.91
Wind	31.45
Hydroelectric	29.56
Solar	23.11
Total	**30.50**

The Commission affirms the use of actual energy revenue values to true-up the annual Portfolio Allocation BA, as adopted in D.19-10-001. This decision finds SCE's reported 2019 energy values in its market portfolio sufficiently supported and in compliance with D.19-10-001.

5.3.2. RPS Value

The RPS value of a utility portfolio is the financial value attributed to the renewable energy component of a utility portfolio.[91] The RPS Value True-Up Methodology accounts for actual retained RPS volumes, actual sold RPS volumes, and actual unsold RPS volumes calculated as follows:

[90] *Id*. at 7.

[91] D.19-10-001 at 6.

2019 Forecast RPS Value (Total forecast value is sum of a to d)[92]

a) Forecast Retained RPS Value = ($18/MWh RPS Adder)[93] x (Forecast PCIA-eligible RECs retained for Electric Utility use in 2019)

b) Actual Sold RPS Value = ∑(Actual Transacted Prices up to 45 days prior to ERRA forecast filing) x (Actual Transacted REC Volume)

c) Unsold RECs RPS Value = ($18/MWh RPS Adder) x (Unsold RECs Volume)

2019 True-Up RPS Value (Total 2019 True-Up value is sum of e to g)[94]

e) Actual Retained RPS Value = ($16.44/MWh RPS Adder)[95] x (PCIA-eligible RECs)

f) Actual Sold RPS Value = ∑(Actual Transacted Prices) x (Actual Transacted REC Volume)

g) Actual Unsold RPS Value = ($0) x (Actual Unsold REC Volume)

SCE states the RPS value was reduced by $116.217 million in the 2019 True-Up because of the reduced value of the 2019 RPS Adder value ($16.44/MWh) in comparison to the 2019 Forecast Adder value ($18.00/MWh).

SCE also states the reduction occurred through a reduction in GWh valued in the RPS adder as a result of the refined RPS Adder methodology in D.19-10-001.[96] D.18-09-018 required use of a Green Market Price Benchmark to calculate the full value of all renewable energy in SCE's eligible portfolio, which was calculated at $59.97 MWh in 2019 ($41.97/MWh Energy Index + $18/MWh RPS Adder). D.19-10-001 modified the RPS value methodology to allow SCE to value RPS sold at the actual RPS value and the value of unsold RPS offered for sale but not sold at $0.

[92] D.18-10-019.

[93] The RPS Adder may be for System, Local or Flexible RA.

[94] D.19-10-001.

[95] The RPS Adder may be for System, Local or Flexible RA.

[96] Exhibit SCE-06 at 97.

The SoCalCCA's contend SCE's RA value calculations are in error for two reasons. First, the SoCalCCAs suggest the RPS Value of SCE's market portfolio is incorrect because SCE is not accounting for all the RECs SCE generated in 2019.[97] The SoCalCCA's calculate the number of unsold RECs in the confidential version of SCE's workpaper titled "REC and RA True-Up Entries" as only 40.6% of the unsold RECs listed in SCE's workpaper titled "[Portfolio Allocation BA] Summary."[98] The SoCalCCA's suggest that accounting for the allegedly missing RECs reduces SCE's 2019 True-Up Portfolio Allocation BA balance by $47.2 million.[99] In response, SCE argues the SoCalCCA's assumptions and calculations of unsold RA using the workpapers is incorrect.

We look to the individual calculations to determine what how the unsold RA values should be calculated in the aforementioned workpapers. The SoCalCCA's calculated the amount of unsold RA using the following formulas:

1. Unsold RA ("REC and RA True-Up Entries") = Cell B5 - (Cell B6/Cell B3)
2. Unsold RA ("[Portfolio Allocation BA] Summary") = Cell R40/November RPS MPB
3. Total Sales Revenue ("REC and RA True-Up Entries") = Cell P15+Cell P23
4. Total Sales Revenue ("[Portfolio Allocation BA] Summary") = R37

[97] SoCalCCA's Joint Opening Comments at 2, 5-6.

[98] *Id*. at 5.

[99] *Id*. at 2, 6.

SCE replies that SoCalCCA's calculations are in error. With respect to calculation #1, SCE states the following:

Cell B6 = Actual Sales Revenue from Sold RECs

Cell B3 = Final MPB of $16.44/MWh, which is only applied to retained RECs

Since the number of sold RECs must be divided by the actual sale value of the RECs, SCE argues that one cannot calculate the number of sold RECs by the final MPB.[100] SCE states that the volume of sold RECs is summarized in Table X-51.[101]

SCE argues the SoCalCCA's calculation #4 is in error because cell R40 is the total amount of SCE's excess RPS true up value of $116,216,535, which includes the sum of values for 1) the true-up of the REC MPB, 2) the true-up of the quantity to exclude excess RECs and 3) revenue of actual sold RECs. SCE argues that this value was not meant to be divided by the MPB to yield the unsold REC volume, and SoCalCCA's equations are again in error.[102] SCE again points to Table X-51 for the number of unsold RECs.

This decision resolves SoCalCCA's objection to SCE's RA Valuation in favor of SCE/the SoCalCCAs. The Commission reviewed SCE's workpapers and verified that the volume of unsold RECs in the workpapers corresponds to the volumes of unsold RECs reported in Table X-51.

The second reason the SoCalCCAs object to the RA value of SCE's market portfolio is because the SoCalCCA's assert SCE may not list RECs as unsold in the absence of additional evidence showing SCE attempted to sell RECs in a solicitation but was unable to; the SoCalCCAs therefore recalculated the Portfolio

[100] SCE Reply Brief at 10.

[101] *Id*. at 11.

[102] *Ibid*.

Allocation BA balance assuming a substantial portion of SCE's RECs should not be listed as remaining unsold and found the Portfolio Allocation BA should be reduced by an additional $32.3 million.[103] In response, SCE provides three solicitations in which SCE marketed RPS volumes in 2019, consisting of 1) September 27, 2018 solicitation for 2019 and 2020 vintage RECs, 2) April 17, 2019 solicitation for 2019, 2020 and 2021 vintage RECs and 3) September 4, 2019 solicitation for 2019, 2020 and 2021 vintage RECs.[104] SCE asserts it consulted with the Independent Evaluator for each solicitation, the offers were reviewed by the procurement review group and SCE offered the resulting offers for Commission approval via AL 3941-E, AL 4064-E and AL 4109-E.[105]

Upon consideration, we find SCE provided sufficient evidence to show it complied with the requirements of D.19-10-001, and properly listed RA volumes listed offered for sale, but which remained unsold at a value of $0, in its 2020 ERRA forecast application.

5.3.3. RA Value and Excess RA Proposal

The RA value is the financial value attributed to the RA component of a utility portfolio.[106] The RA Value True-Up Methodology accounts for actual retained RPS, actual sold RA, and actual unsold volumes calculated as follows:

[103] SoCalCCA's Joint Opening Brief at 3.

[104] SCE Reply Brief at 9.

[105] *Id*. at 9-10.

[106] D.19-10-001 at 6.

2019 Forecast RA Value[107] (equals sum of a to d)

a) *Forecast Retained RA Value = ($37.08/MWh System, $37.08/MWh Local, N/A Flexible RA Adder) x (RA Volume Used for Compliance)*

b) *Actual Sold RA Value = ∑(Actual Transacted Prices up to 45 days prior to ERRA forecast filing) x (Actual Transacted RA Volume)*

c) *Forecast Sold RA Value = (($37.08/MWh System, $37.08/MWh Local, N/A Flexible RA Adder) x (RA Volume Forecast as Sold)*

d) *Forecast Unsold RA Value = (($0 RA Adder) x (RA Volume Forecast as Unsold)*

2019 True-Up RA Value[108] (equals sum of c to e)

c) *Actual Retained RA Value = ($33.24/MWh System, $44.64/MWh Local, $33.36/MWh Flexible RA Adder) x (RA Volume Used for Compliance)*

d) *Actual Sold RA Value = ∑(Actual Transacted Prices) x (Actual Transacted Volume)*

e) *Actual Unsold RA Value = ($0) x (Quantity Offered for Sale but Not Sold)*

SCE states that the true-up of its RA value -- using the updated 2019 True-Up RA Adder values and accounting for the actual value of RA sold -- increased SCE's RA value by $2.513 million. The SoCalCCAs express concern that Energy Division staff's calculation of the RA Market Price Benchmarks may be artificially depressed. They urge the Commission's Energy Division staff to revisit their calculations of these benchmarks, as the SoCalCCA's collective information regarding the market price CCAs paid for RA is higher than SCE's reported RA market prices. The SoCalCCA's calculate a Portfolio Allocation BA

[107] D.18-10-019.

[108] D.19-10-001.

balance reduction of $65.8 million when the SoCalCCA's input their collective RA prices.[109]

In response, SCE indicates the SoCalCCA's argument is meritless and argues that any concerns with the Commission's energy division's market price benchmark calculations should be addressed through the PCIA rulemaking procedurally.[110]

Upon consideration, we find SCE's reported RA value using the 2019 RA benchmark is reasonable and in compliance with D.18-10-019 and D.19-10-001.

In its application, SCE also proposes to treat any local RA capacity in excess of its LA Basin and Big Creek-Ventura monthly requirements, and a 100 MW per local area buffer as system RA for the purpose of determining its market value.[111] SCE's CAM eligible and PCIA-eligible resources are in excess of its local RA requirements. Therefore, any excess RA would be treated as having a system RA market value rather than a local RA value in 2020. Since the system forecast RA Adder as of November 1, 2019 is higher than the local RA, SCE states its proposal will increase the value of its CRS-eligible portfolio.[112]

In its November Update testimony, SCE reported 621 MW of excess RA, 106 MW of which were actually sold and valued "at the actual transacted price."[113] SCE forecasts the value of the remaining 515 MW at 0.[114]

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[109] SoCalCCA's Joint Opening Brief at 3.

[110] SCE Reply Brief at 3-4.

[111] Exhibit SCE-01 at 97.

[112] Exhibit SCE-06 at 82.

[113] *Id*. at 101.

[114] *Ibid*.

No parties commented or opposed SCE's proposal for treating excess RA. Upon consideration, this decision finds SCE's treatment of excess RA reasonable.

5.3.4. Billed Energy Revenues

SCE points to the variance between its forecast and actual billed revenues as another primary driver of the Portfolio Allocation BA undercollection. SCE suggests that the variance in billed revenues resulted from delayed implementation of 2019 ERRA forecast rates. Between January 1, 2019 and May 31, 2019, SCE collected the 2018 PCIA rates, which were lower than 2019 PCIA rates, and only began collecting 2019 PCIA rates starting on June 1, 2019.[115]

SCE also points to its use of system-level, rather than vintage-specific billing determinants as a cause of the billed revenue variance.[116] SCE does expect a similar undercollection to occur as a result of 2020 PCIA rates because the Commission subsequently adopted the use of vintage billing determinants.[117]

5.3.5. Other True Ups

SCE's 2017 vintage departed load customers received a credit of their pro-rata share of the $54.477 million revenue returned to SCE's customers through D.19-10-039 in the 2017 vintage subaccount of the Portfolio Allocation BA.[118] As discussed above, SCE also recorded the 2019 forecast year-end balance in the ERRA BA as a revenue requirement in the 2019 vintage year subaccount of the Portfolio Allocation BA.[119] Finally, the SCE points to the amortization of

[115] Exhibit SCE-01 at 102.

[116] *Ibid*.

[117] D.19-10-001 at 57 (OP 6).

[118] Exhibit SCE-06 at 85.

[119] *Id*. at 85.

$101.691 million in the GRC Revenue Requirement MA[120] balance to the Portfolio Allocation BA as a large adjustment of the Portfolio Allocation BA balance.[121]

5.4. 2019 New System Generation BA True-Up

The New System Generation BA records the benefits and costs of power purchase agreements associated with new generation resources, *see* Section 4.3 for a discussion of applicable contracts. SCE estimates the 2019 year-end balance of the New System Generation BA is an under-collection of $92.461 million.[122]

Other than treatment of the direct GHG costs, as discussed in Section 6.1, no parties opposed the true-up of SCE's 2019 New System Generation BA undercollection. As we resolve the treatment of direct GHG costs in SCE's favor, we also find SCE's request to true up this balancing account is reasonable.

5.5. 2017-19 Tree-Mortality Non-Bypassable Charge BA True-Up

The Commission established the Tree Mortality Non-Bypassable Charge in order to recover the net costs of tree mortality-related biomass energy procurement mandated by Pub. Util. Code § 399.20.3(f).[123] The net costs include the costs of procurement, but exclude the value received from the utilities for 1) energy or ancillary services sales, 2) the value of renewable energy credits associated with the biomass contracts, 3) the value of the RA capacity value of

[120] The GRC Revenue Requirement MA tracks the difference between the 'currently effective' Authorized Base Revenue Requirement reflected in rates since January 1, 2018 and the Base Revenue Requirement authorized in D.19-05-020.

[121] Exhibit SCE-01 at 85, 102; D.19-05-020 at 436 (OP 2 ordered SCE to amortize the balance of the GRC Revenue Requirement MA in rates starting 30 days after the effective date of the decision, or soon thereafter, to December 31, 2020).

[122] Exhibit SCE-06 at 6.

[123] D.18-12-003 at 2.

the contracts.[124] Pub. Util. Code § 399.20.3(f) required operation of the non-bypassable charge through December 31, 2023 to address the State of Emergency on Tree Mortality declared by Governor Jerry Brown in 2015, which was extended until 2028 by SB 901 (Stats. 2018, ch. 626) through Pub. Util. Code § 8388 to help combat wildfire threats to California. The Commission determined recovery of the Tree Mortality Non-Bypassable Charge should occur through the Public Purpose Programs Charge, with each utility establishing a Tree Mortality Non-Bypassable Charge BA to collect the net costs associated with this non-bypassable charge.[125]

Beginning in 2017, SCE recorded charges associated with the Tree Mortality Non-Bypassable Charge in two memorandum accounts, the BioMass MA and Bio-fuel Renewable Auction Mechanism (BioRAM) MA. SCE filed AL 3955-E on February 19, 2019, requesting Energy Division find SCE appropriately operated the BioMass MA and BioRAM MA and requested to transfer the balance of the BioMass MA and BioRAM MA into the Tree Mortality Non-Bypassable Charge BA, and subsequently terminate both the BioMass MA and BioRAM MA.

While Public Purpose Program Charges are typically recorded in the Public Purpose Program Adjustment Mechanism, SCE requested to record the Tree Mortality Non-Bypassable Charge as a charge separate from the Public Purpose Program Adjustment Mechanism, as a separate line item charge in customer's bills under Public Purpose Program charges. On May 22, 2019, the

[124] *Id*. at 2, 25 (OP 1).

[125] *Id*. at 9 (OP 9).

Commission's Energy Division approved AL 3955-E and AL 3955-E-A by disposition letter.

In this ERRA forecast application, SCE requests to recover $71.457 million for expenses incurred in the Tree Mortality Non-Bypassable Charge BA for record years 2017-2019.[126] We grant SCE's request to recover the $71.457 million through its 2020 revue requirement in this ERRA forecast decision and direct SCE to submit the 2017-2019 Record Year charges transferred to the Tree Mortality Non-Bypassable Charge Balancing Account in the 2019 ERRA compliance proceeding for reasonableness review.

6. Greenhouse Gas Forecast Costs, Revenues and Reconciliation

The Commission adopted standard procedures for electric utilities to request greenhouse gas forecast revenue and reconciliation requirements filed after 2013 in D.14-10-033. The decision also adopted Confidentiality Protocols for Cap-and-Trade related data and required the utilities to use a proxy price in their forecasts. Finally, the decision required the utilities to file GHG Forecast Revenue and Reconciliation Applications annually as part of their ERRA forecast applications. We use the standards adopted in D.14-10-033 to review SCE's current Application 19-06-002 to determine the reasonableness of both the recorded and forecasted variables.[127]

SCE's total GHG Cap-and-Trade costs are $251.256 million.[128] SCE also proposes to return $408.413 million in net GHG auction proceed revenues to SCE

[126] Exhibit SCE-06 at A-4.

[127] Previously, the variables included Recorded and Forecast Volumetric Residential Return. However, in D.15-07-001, the Commission concluded that "The IOUs 2016 ERRA Forecast Filings should reflect that the residential volumetric GHG rate offset will be eliminated in 2016."

[128] Exhibit SCE-06 at 53.

customers. SCE's net GHG revenues consist of the following: 1) recorded and forecast GHG auction allowance revenues, 2) administrative and customer outreach expenses, and 3) expenses for approved incremental Energy Efficiency (EE) and Clean Energy programs. A summary of SCE's proposed GHG allowance revenues and this decision's adopted GHG allowance revenues are provided in the table below (in millions):

Table 6-1. Summary of GHG Allowance Auction Revenues and Expenses.[129]

Program	SCE Proposed	Commission Adopted
GHG auction revenues		
1. 2019 GHG Auction revenue true-up	-$12,316,022	-$12,316,022
2. 2020 Forecast GHG auction allowance revenue	-$453,575,354	-$453,575,354
3. 2020 Forecast Franchise Fees and Uncollectibles	-$5,162,637	-$5,162,637
GHG Revenue Subtotal	-$471,054,013	-$471,054,013
Administrative Expenses		
1. Outreach and Administrative Expenses	$250,000	$250,000
2. FF&U	$2,902	$2,902
Subtotal	$252,902	$252,902
Clean Energy and Energy Efficiency Programs		
1. 2020 Solar on Multifamily Affordable Housing (SOMAH)	$45,357,535	$45,357,535
2. 2020 Disadvantaged Communities -- Single-Family Solar Homes (DAC-SASH)	$4,600,000	$4,600,000
3. 2020 Disadvantaged Communities -- Green Tariff (DAC-GT) and Community Solar Green Tariff (CSGT)	$2,431,000	$2,431,000
4. Clean Energy Optimization Pilot (CEOP)	$10,000,000	$10,000,000
5. 2017-2019 SOMAH SB 92 True-Up[130]	*N/A*	*$5,647,768*
Total Clean Energy and EE Program Set-Asides	$62,388,540	*$68,036,303*
Volumetric Returns		
1. Emissions-Intensive and Trade-Exposed (EITE) Customer Return	$27,671,109	$27,671,109
2. Small Business Returns	$12,917,248	$12,917,248
3. California Climate Credit	$367,824,219	*$362,176,219*

[129] *Id*. at 62.

[130] Line items in italic font are Commission-adopted changes to the ERRA forecast not proposed by SCE.

SCE requested to distribute the $408,412,576 to 1) EITE customers, 2) eligible small business customers and 3) residential customers through the California Climate Credit. Finally, SCE proposed to return a biannual residential California Climate Credit of $40.00 per eligible household.

6.1. Greenhouse Gas Costs

GHG emissions costs are incurred directly or indirectly by a utility as a result of the GHG Cap-and-Trade program. Direct costs include, generally, the costs incurred to purchase compliance instruments for plants run by the utility or the costs of providing physical or financial settlement specifically for GHG emissions from plants not owned or operated by the utility. Indirect costs generally reflect GHG costs embedded in the price of power purchased on the market or through contracts that do not include GHG settlement terms.

SCE's November Update forecasts $251.256 million in 2020 for direct GHG costs, including FF&U. SCE calculates direct GHG costs using the Intercontinental Exchange settlement price as of August 27, 2019, which is $18.36/metric ton (MT) multiplied by the GHG emissions volume.[131] SCE proposes to allocate direct GHG costs to the customers who receive the benefit of the resources to which the GHG costs are attributable. SCE includes the direct cost of the GHG compliance instruments in its proposed generation service though the ERRA BA, Portfolio Allocation BA and the Energy Settlement MA, as shown on Table 7-1. SCE also proposes to include direct GHG costs for the New System Generation BA through its delivery service, as shown on Table 7-2, below. In addition, SCE forecasts additional indirect GHG costs embedded in

[131] Exhibit SCE-06 at 53.

the price of resources it will procure through the CAISO market to meet bundled customer load.

Public Advocates Office opposes recording and allocating direct GHG emissions costs in any account other than the ERRA BA. Public Advocates Office asserts that "SCE already records the forecast costs and revenues associated with energy dispatch in the Generation Service segment of its revenue requirement," therefore charging GHG costs to SCE's bundled service customers in the New System Generation BA would double-charge [bundled service] customers for GHG costs.[132]

Public Advocates Office asserts that the New System Generation BA records net costs, which should not include direct GHG costs. Since DA and CCA customers already have a separate GHG requirement, Public Advocates Office argues that embedding direct GHG costs in the New System Generation contracts costs violates Pub. Util. Code § 366.2(a)(4).[133]

SCE argues it is not double-charging its bundled service customers. Rather, recording all direct GHG charges to the ERRA BA would disproportionately charge all GHG costs to SCE's bundled service customers rather than those benefitting from the resources.[134] SCE indicates that the net cost incurred by DA, CA, CCAs should include the embedded cost of GHG and does not violate Pub. Util. Code § 366.2(a)(4).[135] The SoCalCCA's oppose Public Advocates Office's recording of direct GHG costs for New System Generation

[132] Exhibit CalAdv-01 at 2-5 to 2-6, *citing* Exhibit SCE-01 at 7 (Table II-2).

[133] Exhibit CalAdv-01 at 2-4.

[134] SCE Opening Brief at 9-17.

[135] *Id*.

resources in the ERRA BA, stating this would lead to increased GHG costs for SoCalCCA's departed load customers.[136]

We now consider the proper treatment of direct GHG charges in the New System Generation BA. While departed-load customers procure their own energy, SCE still procures certain resources (such as resources required to meet system and local RA obligations) on behalf of departed load customers. In D.06-07-029, as modified by D.10-12-035 and SB 695, the Commission adopted a CAM to allocate the costs electric utilities incur to meet RA requirements on behalf of customers in an electric utility's service territory. As long as the resources that receive cost recovery through the New System Generation BA do not receive duplicative recovery through the ERRA, there is no double-counting of GHG emissions costs for bundled service customers.

Public Advocates Office's final objection to SCE's direct GHG allocation methodology relies on Public Advocates Office's interpretation of the weighted average cost (WAC) methodology as recently modified by D.19-04-016. Amended Attachment C to D.15-01-024 contains several references to "ERRA" or an "ERRA account," which Public Advocates Office points to as evidence that GHG costs must be recorded in the "ERRA balancing account."[137] SCE opposes Public Advocates Office's interpretation of D.19-04-016, stating the decision clarified the accounting method for GHG allowances, to specify the accrual method of accounting, but did not consider whether direct GHG costs should be recorded exclusively in the ERRA BA.

[136] SoCalCCA's Reply Comments at 6-8.

[137] Exhibit CalAdv-01 at 2-4, *citing* D.19-04-016, Attachment C at C-7, C-8, C-10, C-11 and C-13.

Upon consideration, the Commission finds SCE's 2020 forecast GHG cost is reasonable and complies with the standards set in D.14-10-033 and D.19-04-016. Recording of direct GHG costs is not limited to the ERRA BA. For example, this decision recognizes a number of balancing accounts should be review through the ERRA forecast, including the ERRA BA, the New System Generation BA, Portfolio Allocation BA and Green Tariff Shared Renewables BA. Through the ERRA compliance proceeding, the Commission reviews the management of the aforementioned accounts (along with a substantial number of other accounts too numerous to list here) for reasonableness. The WAC methodology's reference to "ERRA" or "ERRA account" in D.19-04-016 does not indicate those costs must be recorded in the ERRA BA.

Direct GHG costs are appropriately recorded in the balancing account to which cost recovery is approved. As Attachment C D.19-04-016 states, "each month the utility records its GHG costs to its respective balancing account…."[138] Regardless of which balancing account the direct GHG costs are recorded in, SCE must summarize all direct GHG costs in SCE's WAC table, template C-1 and template D-2, and include it as part of its SCE's showing in the annual ERRA compliance proceeding.

6.2. Greenhouse Gas Allowance Proceeds

The recorded and forecast GHG allowance proceeds are the proceeds received by a utility as a result of selling the allowances allocated to ratepayers by the State. SCE forecasted its 2020 GHG allowance revenue by multiplying a forecast proxy GHG allowance price of $18.36/MT by the total volume of allowances the California Air Resources Board (ARB) allocated to SCE

[138] D.19-04-016 at C-8.

(24,704,540 allowances).[139] SCE's total forecast 2020 GHG allowance is $453.575 million based on its forecast 2020 GHG allowance revenue.

SCE's recorded 2019 GHG allowance revenue was $424.297 million. SCE adjusted its 2020 forecast to reflect $12.316 million in overcollected funds due to the difference between actual and forecast auction allowance revenues in 2019. In addition, SCE forecasts a $5.162 million refund in FF&U in 2020. Accounting for SCE's 2019 overcollection and 2020 FF&U, SCE forecasts its total 2020 GHG allowance revenue at $471.054 million.[140]

No parties opposed or commented on SCE's GHG proceeds calculations. Upon consideration, the Commission finds SCE's 2019 forecast allowance proceeds and costs reasonable.

6.3. Administrative and Customer Outreach Expenses

The recorded and forecast administrative and customer outreach expenses are the costs incurred by a utility for administrative and customer outreach expenditures that relate to the GHG allowance proceeds return program.

SCE's 2019 recorded administrative and customer outreach costs were $266,191.[141] SCE's 2020 forecast of administrative and customer outreach expenses is $250,000, consisting primarily of "marketing, education and outreach costs associated with the April and October climate credits."[142] SCE also forecasts $2,902 in FF&U, for a total cost of $252,902 for administrative and customer outreach costs.

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[139] Exhibit SCE-06 at 57.

[140] *Id*. at 62.

[141] *Id*. at 56.

[142] *Ibid*.

No parties opposed or commented on SCE's 2020 forecast of administrative and customer outreach expenses as proposed in the November Update. Upon consideration, the Commission finds SCE's 2020 forecast administrative and customer outreach expense costs reasonable.

6.4. Clean Energy and Energy Efficiency Programs

Under Pub. Util. Code § 748.5(c), the Commission may allocate up to 15 percent of the revenue received by an electric corporation from its sales of allocated GHG allowances to specific Clean Energy and EE projects that are not funded by another source and are already approved by the Commission. SCE's 2020 forecast 15 percent allowance is $68.036 million.[143] A summary of SCE's proposed and Commission adopted funding for Clean Energy and EE programs is provided in Table 6-1 above.

The Solar on Multifamily Housing (SOMAH) program is discussed in Section 6.4.1. The Disadvantaged Communities Solar Affordable Housing (DAC-SASH), Disadvantaged Communities Green Tariff (DAC-GT), Community Solar Green Tariff (CSGT) and CEOP programs are reviewed in Section 6.4.2.

6.4.1. 2017-19 SOMAH SB 92 True-Up

AB 693 (Eggman), Stat. 2015 ch. 582, created the SOMAH program, allocating up to $100 million in funding from Pacific Gas and Electric Company, San Diego Gas & Electric Company, SCE, Liberty Utilities (CalPeco Electric) LLC and PacifiCorp d/b/a Pacific Power's share of greenhouse gas allowance auction proceeds to install solar photovoltaic energy systems on multifamily affordable housing properties throughout California.[144]

[143] *Id*. at 62.

[144] Pub. Util. Code § 2870.

In D.17-12-022, the Commission explained that:

> [t]he overall target of the SOMAH program is to install at least 300 megawatts of generating capacity on qualified properties by 2030. Tariff credits accrued by using the generation from SOMAH development will be used primarily to offset bills of tenants of qualifying properties. In addition, program, service providers must produce economic benefits by providing job opportunities to residents of disadvantaged communities. Within these general guidelines, the Commission has discretion to determine program rules and implementation procedures.

On March 18, 2016, an ALJ Ruling directed the electric utilities to allocate a portion of their 2016 and 2017 GHG proceeds to fund AB 693. SCE set aside $3.04 million in 2016 and $5.04 million in 2017, and these amounts were adopted in SCE's respective forecast proceedings.[145] This set-aside represented to set aside 10 percent of the 15 percent of available funds allowed for clean energy and energy efficiency programs. The Commission adopted an $8.077 million set-aside for the SOMAH program in SCE's 2017 ERRA forecast proceeding, but there was disagreement among parties to the Net Energy Metering rulemaking regarding whether the correct interpretation of AB 693 required electric utilities 10 percent of their total GHG allowance revenue proceeds for the SOMAH program rather than just 10 percent of the set aside for clean energy and energy efficiency programs.

SB 92 clarified the amounts to be set-aside for SOMAH as "one hundred million dollars ($1,000,000) or 66.67 percent of available funds, whichever is less, from the revenues described in subdivision (c) of Section 748.5 . . ."[146] Since the

[145] D.17-12-022 at 34-35.

[146] Pub. Util. Code § 2870(c).

total program allowance is 100 million statewide, D.17-12-022 set SCE's maximum contribution to the $100 million budget[147] as a proportion of their recorded GHG Allowance.[148]

D.17-12-022 also stated the Commission may revisit the funding amounts for 2016 and 2017 in a future ERRA true-up, if appropriate. Going forward, the Commission explained that "the IOUs must identify in their ERRA or ECAC filings an amount of money for funding the SOMAH program that is based on the calculation requirements of SB 92 and is consistent with realistic expectations of available resources."[149]

6.4.1.1. Parties' Positions

In this proceeding, Sunrun requests the Commission "[adopt] measures to address and correct the under-allocation of funds to the [SOMAH] program that occurred during the program's first two years, fiscal years (FY) July 1, 2016 to June 30, 2017," as summarized on the table below.[150]

Table 6-2. Sunrun's Summary of SCE's SOMAH program in FYs 2016-2017.

Fiscal Year	SCE GHG allowance proceeds	15% - Clean Energy and EE programs	Available for AB 693 per SB 92	Amounts Collected by SCE	Under-collection amount
2016-2017	$522,541,803	$78,381,270	$45,360,000	$3,036,945	$42,323,055
2017-2018	$448,498,920	$67,274,838	$44,849,892	$5,040,278	$39,809,614
Totals	**$971,040,723**	**$145,656,108**	**$90,209,892**	**$8,077,223**	**$82,132,669**

Sunrun alleges that a waitlist of 42 projects serving 8,000 low income households formed on the first day of SOMAH program implementation

[147] A maximum contribution based on the $100 million maximum SOMAH contribution would be triggered if the total GHG allowance proceeds exceed $1 billion, which has yet to occur.

[148] D.17-12-022 at 36.

[149] *Id*. at 35.

[150] Exhibit SR-1 at 2.

(July 1, 2019) in SCE's service territory as a direct result of SOMAH program underfunding in FYs 2016-2017.[151] Sunrun asserts that these SOMAH applications comprise a total request of $19,589,711 in SOMAH incentives for SCE's service territory.[152]

Sunrun argues the Commission could remedy the current oversubscription of the SOMAH program by setting aside an additional $82.1 million in GHG allowance revenue in this 2020 ERRA forecast proceeding.[153] Accounting for the 10% administrative fee, Sunrun estimates a total of $73,919,402 in additional SOMAH funding could be made available by this set aside.[154]

Sunrun estimates their proposed set-aside would reduce the residential California Climate Credit by $17.84 per household, or $8.92 semiannually; this represents a 25% reduction in the residential California Climate Credit for all SCE bundled and departed load customers.[155]

SCE, on the other hand, opposes Sunrun's proposal as outside the scope of the current proceeding. SCE also opposes consideration of Sunrun's proposal in ERRA and suggests a petition for modification of D.17-12-022 is likely required to address Sunrun's proposal.[156] Finally, SCE argues that the FY 2016-2017 GHG allowance revenue was already disbursed to customers and cannot be retroactively recovered.[157]

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[151] Exhibit SR-1 at 15.

[152] *Id*. at 15.

[153] *Id*. at 3, 6.

[154] *Id*. at 15.

[155] *Id*. at 16.

[156] Exhibit SCE-05 at 12-16.

[157] *Id*. at 13.

6.4.1.2. Discussion

A summary of available funds for the SOMAH program is provided in the table below.

Table 6-3. Summary of SCE Set-Asides for SOMAH through ERRA Forecast Proceedings.[158]

ERRA Forecast Year	Forecast 10% GHG Allowance	Recorded 10% GHG Allowance	SCE ERRA SOMAH Set-Aside	SB 92 Funding Shortfall
2017[159]	$36,246,058	**$38,489,415**	$8,077,000	$30,412,415
2018	$40,180,800	**$38,931,611**	$39,125,783[160]	-$194,024
2019	$40,853,635	**$42,429,739**	$40,853,635	$1,576,104
2020	**$45,357,535**	N/A	$45,357,535	$0
Total			**$133,456,418**	**$31,794,495**

The values reported above differ from Sunrun's calculated GHG allowance revenues, as Sunrun's data relies on information extrapolated from the ARB's dataset, and is misaligned with the ERRA proceeding's record year forecast proceedings. This decision relies on annual forecast GHG allowance revenue data to incorporate SB 92 funding requirements into the ERRA process. For example, the 2016-2017 FY funding shall be determined in the 2017 ERRA forecast using forecast 2017 GHG allowance revenues. Table 6-3 accounts for the four years of funding authorized under AB 693/SB 92 (FY 2016-2020).[161]

When the SOMAH program started on July 1, 2019, the Commission had set-aside $88.057 million of funds to finance and operate the SOMAH program in

[158] Exhibit SCE-06 at 62 (Table VII-29).

[159] Since the ERRA forecast budget is approved by calendar year, the Commission approved the set-asides for FY 2016-2017 in SCE's 2017 ERRA forecast application.

[160] $46,000,000-$6,874,217

[161] The Commission may authorize another six years of SOMAH funding pursuant to Pub. Util. Code §2870(c), until the end of FY 2026.

SCE's service territory. Including the current set-aside of $45.358 million for calendar year 2020 in this application, we find SCE set aside a total of $133.456 million for the SOMAH program to date. This represents a little over three years of annual funding for a program which, due to delayed implementation, began operating approximately six months ago.

This decision finds insufficient evidence to show that the current funding allocation for SOMAH caused a waitlist on the first day of the program's implementation, or that an additional $31.794 million set aside, in addition to the $45.357 million set-aside authorized in this decision, would affect the waitlist for SOMAH projects in SCE's service territory.

As stated in D.17-12-022, the Commission can address the prior funding for FYs 2016-2017 in this ERRA forecast as appropriate. The Assigned Commissioner's Scoping Memo also found the SOMAH underfunding issue was properly within the scope of issues for this proceeding. Therefore, the SOMAH underfunding issue is reasonably addressed in this proceeding.

Since Sunrun's proposal requires retroactive application of SB 92 in order to true-up SOMAH underfunding in FY 2016-2017, we consider the appropriateness of this retroactive funding recovery in ERRA. In general, statutes do not operate retroactively unless the legislature plainly intended them to do so.[162] In the case of a statute with retroactive effect, the first issue to consider is whether the retroactive statute is new or clarifies existing law. "A statute that merely clarifies, rather than changes, existing law is properly applied to transactions predating its enactment."[163] "However, a statute might not apply

[162] *Landgraf v. USI Film Products* (*Landgraf*) (1994) 511 U.S. 244, 269-270.

[163] *Carter v. Cal. Dept. of Veterans Affairs* (*Carter*) (2006) 38 Cal.4th 914, 922, *citing Western Security Bank v. Superior Court* (1997) 15 Cal.4th 232, 243.

retroactively when it substantially changes the legal consequences of past actions, or upsets expectations based on prior law."[164] Even if a statute explicitly specifies retroactive application, retroactive application may not apply when it impairs a vested right without due process of law.

SB 92 expressly sought to clarify an existing law, AB 693, and therefore we can infer that SB 92 could act retroactively to true-up FYs 2016-2017 SOMAH funding, as long as it does not impair a vested right. In this case, only $5.270 million in GHG allowance revenues remain as available funds in the 2020 forecast. Setting-aside an additional ~$31 million for SOMAH funding in the 2020 ERRA forecast reduces the GHG allowance returned to customers below the 85 percent authorized in Pub. Util. Code § 748.5(c), thereby impairing SCE's 2020 customers' vested right to the receive their full allocation of GHG allowance returns. Therefore, we must consider whether to implement SB 92 retroactively despite its impairment of SCE customers' right to recover at least 85 percent of GHG allowance revenue.

In cases where a law's retroactive application may impair a vested right without due process of law, the courts consider a two-factor test. In the first factor, courts consider the significance of the state interest served by the law and the importance of the retroactive application of the law to the effectuation of the interest.[165]

In this case, the interest of the state in supporting the SOMAH program is strong, as the SOMAH program helps achieve the Commission's goals of promoting GHG reduction goals and supporting disadvantaged communities'

[164] *Ibid*.; *see also Landgraf* at 269.

[165] *In re Marriage of Fellows* (2006) 39 Cal.4th 179, 189.

transition to clean energy. However, as we discussed above, there is currently over $133 million of program funding for SOMAH available through 2020, with a demonstrated need of $19.590 million. The Commission sees no necessity for retroactive application of the statute, as it results in SCE's 2020 customers bearing a disproportionate burden of paying almost three full years of SOMAH program funding in 2020 without a commensurate showing of need.

The second factor courts look at when considering the retroactive application of a law that impairs a vested right is "the extent of the reliance upon the former law, the legitimacy of that reliance, the extent of actions taken on the basis of that reliance, and the extent to which the retroactive application of the new law would disrupt those actions."[166] Pub. Util. Code § 2870(c) authorizes the Commission to collect funding for SOMAH for four fiscal years (from 2016-2020 fiscal years), with an option for continued allocation of funds through FY 2026 upon a finding that there is adequate interest and participation in the program. Pub. Util. Code § 2870(f) also allows the Commission to operate the program until December 31, 2030, with a program target of achieving at least 300 MW of combined generating capacity on qualified properties.

Neither AB 693 nor SB 92 expressly contemplated undermining the goals of Pub. Util. Code § 748.5(c) to allocate up to 15 percent of revenues of GHG for clean energy and energy efficiency projects, which would occur if we granted Sunrun's request. The Commission may fulfill the statutory objectives of the SOMAH program prospectively by extending the program allocation through 2026. Accordingly, this decision finds that SB 92 implementation does not rely

[166] *Id*.

on an increase the in GHG allowance for clean energy and energy efficiency projects beyond the 15 percent limit set by Pub. Util. Code § 748.5(c).

The Commission's commitment to running a successful SOMAH program remains strong. SCE shall set-aside an additional $31,794,495 of SOMAH funding in order for the SOMAH program to be fully funded over four years as contemplated by SB 92. In the 2020 Record Year, SCE shall set aside $3,077,728, comprising the available GHG allowance remaining in the set-aside for the 2020 forecast, as shown on Table 6-1 of this decision. SCE shall set-aside the remaining $26,146,124 in SOMAH funding in future ERRA forecast applications as funding becomes available through the set-aside pursuant to Pub. Util. Code §748.5(c).

This decision works in conjunction with any Commission decisions adopting extensions of the SOMAH program through 2026, in order to allow SCE to fully fund the SOMAH program for up to 10 years. All unused funds set aside for the SOMAH program shall be returned to SCE's customers through an ERRA forecast true-up in the year following the program's end. SCE should also transfer approved set-asides to the SOMAH BA on a quarterly basis as needed to meet project incentive demand and avoid SOMAH application waitlists. Otherwise, SCE's set aside for SOMAH in 2020 is reasonable and complies with D.17-12-022.

6.4.2. Other Clean Energy and EE Programs

In D.18-06-027, the Commission created the DAC-SASH, the DAC-GT, and the CSGT programs to incentive the installation of solar generating systems in low income households. D.18-06-027 set an annual $10 million budget for the DAC-SASH program. D.18-06-027 set no budget for the DAC-GT or CSGT

programs, but authorized utilities to funds both programs first through available GHG allowance proceeds, and then through public purpose program funds if the GHG allowance funds were exhausted.

SCE proposes to set-aside $4.600 million, its share of the annual $10 million budget, for the DAC-SASH program. SCE also proposes to set aside $2.431 million in GHG allowance funding for the DAC-GT and the CSGT programs. Upon consideration, the Commission finds SCE's set aside for DAC-SASH, DAC GT and CSGT reasonable and in compliance with D.18-06-027.

In D.19-04-010, the Commission approved the CEOP. SCE proposes to set aside $10 million for the CEOP pilot in 2020. Upon consideration, SCE's $10 million set-aside is consistent is within the $10 million annual set-aside limit and within the $20.4 million budget for the CEOP. Accordingly, we find SCE's set-aside for the CEOP reasonable.

6.5. Emissions-Intensive and Trade Exposed (EITE) Emissions Customer Return

A portion of the GHG allowance proceeds are returned to customers who qualify as EITE. The EITE customer return is based on formulas determined in R.11-03-012 and made to EITE customers once per year.

SCE's 2019 recorded EITE customer return was $25.885 million and SCE's 2020 forecast EITE customer return is $27.671 million. No parties opposed or commented on SCE's 2020 forecast EITE customer return as proposed in the November Update. Upon consideration, the Commission finds SCE's forecast 2020 EITE customer return is reasonable for the purpose of calculating the proceeds available to EITE customers.

6.6. Small Business Return

Using a methodology adopted in R.11-03-012, a portion of allowance proceeds are returned to customers who meet the definition of a small business

as determined in R.11-03-012. The forecast Small Business Return is volumetric; it is calculated using the forecast GHG Cost (*see* Section 6.1 above) and the volume of electricity used by the customer and is returned as a credit to the delivery component of the customer's monthly bill.

SCE's 2019 recorded Small Business Volumetric Return is $19.573 million and its 2020 forecast Small Business Volumetric Return is $12.917 million.

No parties opposed or commented on SCE's 2020 Small Business Volumetric Return in the November Update. Upon consideration, the Commission finds SCE's forecast 2020 Small Business Volumetric Return is reasonable for the purpose of calculating the proceeds available to customers.

The exact credit per customer will be determined by multiplying the Cap-and-Trade unit cost for the customer's rate schedule by the customer's monthly usage and then adjusting it by the Industry Assistance Factors determined in D.13-12-002.

6.7. Residential California Climate Credit

The California Climate Credit is distributed to residential households after all applicable GHG-related expenses and customer returns have been made. It appears as a credit on the customer's bill twice per year. The California Climate Credit is not related to the volume of electricity used by the household; each household within a utility's territory receives the same California Climate Credit.

SCE's 2020 forecast of the total number of households eligible for the residential California Climate Credit is 4,602,928 and the proposed total revenue available for the residential Climate Credit is $367.824 million. SCE's proposed residential California Climate Credit is $40, to be distributed as a credit on residential customers' bills in April and October of 2020. No parties opposed or commented on SCE's residential California Climate Credit in the

November Update. However, Sunrun proposed to true-up the SOMAH budget per SB 92, which affects the amount of GHG allowance revenue available for return to residential customers through the California Climate Credit. Since this decision reduces the amount of GHG allowance revenue by $5.648 million in order to account for the SOMAH true-ups, the Commission also adjusts the California Climate Credit from $40 to $39.34 per eligible household on a biannual basis. SCE may elect to round the Climate Credit amount to $39.

7. SCE's Ratemaking Proposal and Bundled Customer Rate Proposal

SCE proposes to divide its ERRA revenue requirement between generation service and delivery service, which applies to unbundled customers. In total, SCE forecasts a total revenue requirement $4,696.658 million for 2020, which the Commission modifies to $4,702.307 million to account for an additional $5.648 million to the SOMAH program in in this decision, as discussed in Section 6.4.

The generation service requirement covers 1) the Fuel and Purchased Power, 2) GHG costs of resources recorded in the ERRA BA and Portfolio Allocation BA and 3) 2019 year-end balances in the ERRA BA, Portfolio Allocation BA and the Energy Settlement MA, as summarized in Table 7-1 below. SCE forecasts a $544.417 million decrease in the forecast generation revenue requirement from the rates effective in November 2019.[167]

[167] Exhibit SCE-06-ERRATA V2 at 8.

Table 7-1. Summary of SCE Proposed Generation Service Revenue Requirement.[168]

Description	Estimated 2020 Revenue Requirement (millions)
Fuel and Purchased Power Costs (including GHG costs) • ERRA BA-related • Portfolio Allocation BA-related • Green Tariff Shared Renewables BA-related	 $2,311.963 $1,415.868 $2.032
2019 ERRA BA True-up	-$17.452
2019 Portfolio Allocation BA True-Up	$476.655
2019 Energy Settlement MA	$1.558
Total Generation Service	**$4,190.624**

SCE's proposed delivery service revenue requirement recovers the 2020 forecast F&PP and GHG costs of resources that are recorded to the New System Generation BA, Tree Mortality Non-Bypassable Charge BA, Local Capacity Requirements BA, the distribution sub-account of the Base Revenue Requirement BA. It also includes a true-up of the year end balances of the New System Generation BA and Tree Mortality Non-Bypassable Charge BA. The delivery service revenue requirement is recovered from all bundled and departing load SCE customers through allocation mechanisms other than the CTC and PCIA. SCE forecasts a $364.080 million increase in the forecast delivery revenue requirement from the rates effective in November 2019,[169]

[168] *Id*. at 8.

[169] Exhibit SCE-06-ERRATA V2 at 8-9.

Table 7-2. Summary of SCE Proposed Delivery Service Revenue Requirement.[170]

Description	SCE's Proposed 2020 Revenue Requirement (millions)	Commission Adopted 2020 Revenue Requirement (millions)
New System Generation • NSG Fuel and Purchased Power 2020 Forecast[171] • NSG Balancing Account 2019 True-Up	$645.659 $92.461	$645.659 $92.461
Spent Nuclear Fuel	$4.382	$4.382
Distribution Rate Component • BRRBA-D F&PP 2020 Forecast • GHG Allowance Revenues 2020 Forecast	$11.396 -$408.413	$11.396 *-$402.764*
Public Purpose Programs Charge • PPPC F&PP (includes TMNBC (2020) and LCR-PPP) • TMNBC BA (2017-2019 True-Up)	$80.092 $71.457	$80.092 $71.457
Total Delivery Service	**$497.035**	***$502.683***

Public Advocates Office opposes SCE's allocation of direct GHG costs in the NSG balancing account, as discussed in Section 6.1. While we do not modify SCE's delivery service requirements as a result of direct GHG cost allocation, we modify the total revenue requirement by $5.648 million for the SOMAH program set-aside, as discussed in Section 6.4.1-6.4.2 of this decision, which increases total

[170] *Id*. at 8.

[171] Estimate includes GHG costs.

deliver service revenue requirement to $511.683 million and increases the rate increase to $368.269 million from 2019 rates.

Based on its ratemaking proposal, SCE proposes the following average 2020 ERRA rate forecast, as summarized in Table 7-3 below. These forecast rates do not include the component of rate change authorized through SCE's GRC or charges for any other programs not considered in this ERRA forecast.

Table 7-3. SCE Proposed 2020 ERRA Forecast Average Rates by Customer Class.[172]

Rate Schedule by Customer Group	Total Delivery (¢/kWh)	Total Generation (¢/kWh)	Total (¢/kWh)
Domestic	**8.790**	**9.282**	**18.072**
• D	10.960	9.230	20.190
• D-CARE	3.049	9.385	12.434
• D-APS	8.534	9.396	17.930
• DE	5.801	9.382	15.183
• DM	13.454	9.422	22.876
• DMS-1	12.678	9.422	22.100
• DMS-2	10.739	9.421	20.160
Lighting-Small, Med. Power	**8.876**	**8.363**	**17.23**
• GS-1	8.652	9.044	17.696
• GS-2	9.221	8.426	17.648
• TC-1	11.474	7.024	18.498
• TOU-GS	8.364	7.562	15.926
Large Power	**5.358**	**6.670**	**12.028**
• TOU-S	7.102	7.155	14.257
• TOU-P	6.187	6.695	12.882
• TOU-T	2.739	6.237	8.975
• TOU-8-S-S	6.991	7.058	14.048
• TOU-8-S-P	6.944	7.146	14.090
• TOU-8-S-T	2.958	5.890	8.848
Agricultural & Pumping	**6.792**	**7.019**	**13.811**
• TOU-PA-2	7.289	7.502	14.791
• TOU-PA-3	6.149	6.395	12.544
Street & Area Lighting	**13.481**	**4.653**	**18.134**
• LS-1	29.188	4.639	33.827
• LS-2	9.105	4.633	13.738
• LS-3	3.854	4.681	8.534

[172] Exhibit SCE-06 at 103.

• DTL	25.900	4.639	30.539
• OL-1	21.294	4.639	25.933
Average Rate - All Groups	**7.929**	**8.210**	**16.139**

In addition, all three large energy utilities experienced Public Safety Power Shutoff (PSPS) events in 2019. The question of whether and how each utility's revenue collections were impacted by any PSPS events has not previously been examined. In order for the Commission to consider any potential impact of PSPS events on revenue collections and whether sales forecast adjustments or other adjustments to revenue collections are appropriate, [insert IOU name] is directed to include in its ERRA Compliance application for 2019 an accounting of the PSPS events that occurred in its service territory in that calendar year and how the PSPS impacted its revenue collections. The 2019 ERRA Compliance case scope may include the following questions:

1. Should sales forecasting methods for adjusting revenue requirement under current decoupling policy be adjusted to account for power not sold during a PSPS event? If so, describe how.
2. What methods could be used to account for sales lost during a PSPS distinct from sales reductions due to conservation?
3. If a utility does not collect its full revenue requirement due to lower volumetric sales during a PSPS, should it be prevented from adjusting future revenue requirements to make up for any undercollection? If so, describe how.

8. Cost Responsibility Surcharges

The CRS Indifference Amount[173] is the difference between the total portfolio cost and the forecast value of the portfolio, and includes for the CTC

[173] The Commission adopted the CRS Indifference Charge in D.02-11-022, as modified by D.03-07-030, D.06-07-030, D.08-09-012, D.11-12-018, Resolution E-4475, D.18-10-019 and D.19-10-001.

and the PCIA charges. The CTC recovers the above-market charges for pre-restructuring resources and is the same for each vintage. The PCIA recovers the above-market costs of all non-CTC eligible resources and varies by the generation resources in that vintage. The PCIA forecasts market value of portfolio of resources estimating the total value as a sum of its energy value,[174] the RPS value[175] and the RA value.[176] The PCIA forecast rate is calculated by multiplying the market price benchmarks[177] of the aforementioned values by the relevant portfolio volume.[178]

SCE forecasts its 2020 PCIA rates by allocating vintage Indifference Amounts to rate groups using adjusted generation revenue allocation factors,[179] then dividing this amount by the billing determinants.[180] For 2020, SCE applied a Refund Rate sur-credit to 2001 and 2004 vintage departed load customers as a result of the 2017 ERRA Phase 2 Settlement Agreement for Pre-2009 Vintage Departing load customers adopted by the Commission in D.19-08-022.[181] SCE also applied a $5.4 million revenue return to SCE's customers from the

[174] The energy value is the estimated financial value, measured in dollars, that is attributed to the energy component of a utility portfolio for a given year.

[175] The RPS Value is the estimate financial value, measured in dollars, that is attributed to the RA component of a utility portfolio for a given year.

[176] The RA Value is the estimated financial value, measured in dollar, that is attributed to the RA component of a utility portfolio for a given year.

[177] The market price benchmark for the energy value, the RPS value and the RA value is the Energy Index (also called "Brown Power Index" "Brown Power Adder" or "Brown Power benchmark"), the RPS Adder and the RA Adder, respectively.

[178] D.19-10-001 at 6.

[179] The system-level generation revenue allocators are normalized to the forecast rate group sales by the kWh usage of each vintage relative to the system kWh usage.

[180] Exhibit SCE-06 at 86-87; D.19-10-019; D.19-10-001.

[181] *Id*. at 88.

Department of Water Resources in anticipation of Commission adoption of a proposed decision, issued October 31, 2019, in Rulemaking (R.) 15-02-012 to Consider the Annual Revenue Requirement Determination of the California Department of Water Resources and Related Issues).[182] Finally, SCE notes that Commission decision in R.17-06-026 (Phase 2 PCIA Rulemaking), A.19-04-014 (SCE's Cost of Capital Application) may further impact SCE's forecast 2020 PCIA rates.[183]

SCE forecasts its 2020 PCIA rates, as summarized in Table 8-1 below, along with its assessment that the proposed PCIA rates, set as a result of the PCIA rate cap increase of $0.005/kWh for each vintage years 2014-2018, will result in a combined undercollection of $55.9 million in 2020.[184] SCE proposes to collect any resulting undercollection through bundled service customer rates as a "loan" which SCE record in the Portfolio Allocation BA Undercollection BA , and recover from departed load customers at a future date.

Table 8-1. Summary of 2019 and 2020 Forecast PCIA Rates, PCIA Rate Caps and SCE's Expected Undercollection of PCIA Amounts by Vintage Year in 2020.

PCIA Vintage Year	2019 PCIA ($/kWh)	2020 PCIA Rate Cap ($/kWh)	2020 Forecast PCIA SARs ($/kWh)	2020 Forecast Undercollection
2001	$0.00005	$0.00505	-$0.00592	$0
2004	$0.00006	$0.00506	-$0.00681	$0
2009	$0.00794	$0.01294	$0.00953	$0
2010	$0.00939	$0.01439	$0.01220	$0
2011	$0.01027	$0.01527	$0.01473	$0
2012	$0.01119	$0.01619	$0.01619	$0

[182] *Id*. at 91-92.

[183] *Id*. at 91.

[184] *Id*. at 90.

2013	$0.01124	$0.01624	$0.01582	$0
2014	$0.01240	$0.01740	**$0.01928**	**$4,131,363**
2015	$0.00980	$0.01480	**$0.01736**	**$154,659**
2016	$0.01139	$0.01639	**$0.02069**	**$2,662,743**
2017	$0.01105	$0.01605	**$0.01984**	**$11,377,065**
2018	$0.01439	$0.01939	**$0.02372**	**$48,068,561**
2019	$0.01337	$0.01837	**$0.02089**	**$370,387**
2020	--	--	$0.02320	--

SCE anticipates its 2020 forecast PCIA undercollection may require it to file a PCIA Trigger Application. SCE's total forecast 2020 PCIA revenue requirement is $1,667.350 million and SCE expects to recover $454.144 million of the PCIA from departing load customers.[185] SCE calculated its seven percent trigger point as $29.060 million and its 10 percent PCIA threshold as $41.514 million for 2020.[186] SCE anticipates its projected PCIA undercollection may require SCE to file a PCIA trigger application in 2020.[187]

No parties to the proceeding commented on SCE's discussion of an expected undercollection. This decision finds SCE's notification of an undercollection and plan to file a PCIA trigger application consistent with the PCIA rate cap and trigger mechanism methodology adopted by the Commission in D.18-10-019. In the event SCE's Portfolio Allocation BA balance exceeds the 7 percent PCIA trigger balance, SCE shall file a PCIA trigger application wherein SCE shall propose a revised PCIA rate which will bring the projected balance below 7 percent and maintain the balance below that level until January 1, 2021 in order to avoid a "continual state of significant undercollection."[188]

[185] *Id*. at 91.

[186] *Ibid*.

[187] *Ibid*.

[188] D.18-10-019 at 85-88,162 (OPs 9 and 10).

9. Safety Considerations

The health and safety impacts of GHGs are among the reasons that the Legislature enacted AB 32. Specifically, the Legislative found and declared that global warming caused by GHGs "poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Potential adverse impacts include "the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious disease, asthma, and other human health-related problems."[189]

This decision approves SCE's forecast of GHG costs and allocation of GHG allowance proceeds to maintain a key aspect of the GHG reduction program envisioned by AB 32 and Pub. Util. Code § 748.5 and, as a result, will improve the health and safety of California residents.

10. Change in Determination of Need for Hearing

In Resolution ALJ-3439, dated June 13, 2019, the Commission preliminarily categorized this application as ratesetting as defined in Rule 1.3 and anticipated that this proceeding would reasonably require hearings. A PHC was held on August 13, 2019, and a scoping memo and ruling indicating that hearings were necessary was issued. However, the parties thereafter agreed that evidentiary hearings were not necessary. Given that no hearings were held in the current proceeding, we change our preliminary and scoping memo determination to no hearings necessary.

[189] AB 32 § 38501(a).

11. Admittance of Testimony and Exhibits into Record

Since evidentiary hearings were not held in A.19-06-002, there was no opportunity to enter prepared testimony and exhibits into the record. In order to fairly assess the record, it is necessary to include all testimony and exhibits served by SCE.

In its motions of October 30, 2019 and December 12, 2019, SCE requested, pursuant to Rule 13.8 of the Commission's Rules of Practice and Procedure,[190] that the Commission receive the pubic and confidential version of its Exhibits into the record of A.19-06-002. Therefore, we identify the public and confidential version of SCE's supporting testimony as Exhibits SCE-01, SCE-01C, SCE-01A, SCE-02, SCE-03, SCE-04, SCE-05, SCE-06, SCE-06C, SCE-06-ERRATA V2 and SCE-06C-ERRATA V2 .[191] Given the necessity of SCE's testimony to our

[190] All future references to "Rule" or "Rules" hereinafter shall refer to the Commission's Rules of Practice and Procedure.

[191] Exhibit SCE-01 – ERRA 2020 Forecast of Operations (Public Version) dated June 3, 2019.
Exhibit SCE-01C – ERRA 2020 Forecast of Operations (Confidential Version) dated June 3, 2019.
Exhibit SCE-01A – ERRA 2020 Forecast of Operations ERRATA V2 dated June 3, 2019.
Exhibit SCE-02 – ERRA 2020 Forecast of Operations Witness Qualification and Declarations re: Confidentiality dated June 3, 2019.
Exhibit SCE-03 – ERRA 2020 Forecast if Operations Supplemental Testimony dated July 5, 2019.
Exhibit SCE-04 – ERRA 2020 Forecast of Operations (Supplemental Testimony) (Public Version) dated September 13, 2019.
Exhibit SCE-05 – Rebuttal Testimony of SCE in Support of its ERRA 2020 Forecast of Operations, dated October 15, 2019.
Exhibit SCE-06 – Updated Testimony ERRA 2020 Forecast of Operations (Public Version) dated November 8, 2019.
Exhibit SCE-06C – Updated Testimony ERRA 2020 Forecast of Operations (Confidential Version) dated November 8, 2019.
Exhibit SCE-06 – ERRATA V2 – Updated Testimony ERRA 2020 Forecast of Operations (Confidential Version) dated November 15, 2019.
Exhibit SCE-06C – ERRATA V2 – Updated Testimony ERRA 2020 Forecast of Operations (Confidential Version) dated November 15, 2019.

assessment of the proposals put forth, we admit into evidence the public and confidential versions of SCE's exhibits mentioned above.

In its motion of October 31, 2019, Public Advocates Office requested, pursuant to Rule 13.8, that the Commission receive its Exhibits into the record of A.19-06-002. Therefore, we identify Exhibit CalPA-01.[192]

In its motion of October 23, 2019, Sunrun requested, pursuant to Rule 13.8, that the Commission receive its Exhibits into the record of A.19-06-002. Therefore, we identify the public and confidential version of SCE's supporting testimony as Exhibit SR-1.[193]

In its motion of October 30, 2019, CCEA requested, pursuant to Rule 13.8, that the Commission receive its Exhibits into the record of A.19-06-002. Therefore, we identify the public and confidential version of SCE's supporting testimony as Exhibit CalChoice-1.[194]

12. Motion to Seal and Other Procedural Matters

Pursuant to Rule 11.5, portions of the record of a proceeding (such as served testimony) may be sealed. ARB cap-and-trade regulations prohibit disclosure of auction-related information in most circumstances. ARB's goal is to prevent market collusion. The Commission is interested in ensuring that the public has access to information related to utility rates, but also has its own rules to protect the confidentiality of market sensitive information. D.14-10-033

[192] Exhibit CalPA-01 –Testimony on SCE Application for a Commission Finding that its Forecast 2020 ERRA Procurement Plan and Associated Revenue Requirement is Reasonable and for Authorization to Recover that Revenue Requirement from Rates dated September 30, 2019.

[193] Exhibit SR-1 – Testimony of Kelly Knutsen PH.D., on Behalf of Sunrun Inc. dated October 1, 2019.

[194] Exhibit CalChoice-1 – Southern California Edison Company ("SCE") Responses to CalChoice Data Requests dated October 21, 2019.

established Confidentiality Protocols to maximize the amount of information that utilities can make publicly available, while ensuring they do not disclose market sensitive information.

SCE submitted public and confidential versions of its testimony. Pursuant to Rule 11.5 and D.06-06-066, SCE filed a motion requesting that the confidential supplemental information be filed under seal.

The information referenced in the motion to file under seal and the information contained in the testimony filed under seal constitute commercially sensitive material and include information that falls under the "ARB Confidential" and "Confidential" categories in the Confidentiality Matrix.

We grant confidential treatment of and seal (as detailed in the ordering paragraphs herein) Exhibits SCE -1C, SCE-5C, SCE-6C and SCE-6C-ERRATA V2 and the confidential portions in templates and workpapers submitted with SCE's Application on June 3, 2019 and November 8, 2019. The documents placed under seal shall remain under seal for the applicable period of time set forth in the Confidentiality Matrix in D.14-10-033 and General Order (GO) 66 D.

All rulings by the assigned Commissioner and assigned ALJ are affirmed herein; and all motions not specifically addressed herein or previously addressed by the assigned Commissioner or ALJ, are denied.

13. Compliance with the Authority Granted Herein

SCE must submit a Tier 1 advice letter necessary advice letter to the Commission's Energy Division within 30 days of the effective date of this decision in order to implement the rate changes authorized by this decision. The tariff sheets filed in this advice letter shall be effective on or after the date filed, subject to the Commission's Energy Division determining that SCE's advice letter

complies with this decision. SCE anticipates implementation of the rate schedule in this decision in April 2020, concurrent with removal of the 2018 ERRA BA undercollection of $824 million from its rates.[195]

14. Summary of Conclusions

This decision approves SCE's 2020 ERRA forecast application, as modified in this decision and summarized in the Tables 14-1 and 14-2, below.

Table 14-1. Summary of SCE ERRA Revenue Requirement.

Forecast Revenue Requirement	SCE Proposed	Commission Adopted
Generation Service		
F&PP Costs (including GHG costs)		
• ERRA BA-related	$2,311.963	$2,311.963
• Portfolio Allocation BA-related	$1,415.868	$1,415.868
• Green Tariff Shared Renewables BA-related	$2.032	$2.032
2019 ERRA BA True-up	-$17.452	-$17.452
2019 Portfolio Allocation BA True-Up	$476.655	$476.655
2019 Energy Settlement MA	$1.558	$1.558
Subtotal Generation Service	**$4,190.624**	**$4,190.624**
Delivery Service		
New System Generation		
• New System Generation F&PP 2020 Forecast[196]	$645.659	$645.659
• New System Generation BA 2019 True-Up	$92.461	$92.461
Spent Nuclear Fuel	$4.382	$4.382
Distribution Rate Component		
• Base Revenue Requirement BA-D F&PP 2020 Forecast	$11.396	$11.396
• GHG Allowance Revenues 2020 Forecast	-$408.413	*-$402.764*
Public Purpose Programs Charges		

[195] Exhibit SCE-06 at 3.

[196] Estimate includes GHG costs.

• Tree Mortality Non-Bypassable Charge for 2020 and Preferred Resources Pilot #2	$80.092	$80.092
• Tree Mortality Non-Bypassable Charge BA (2017-2019 True-Up)	$71.457	$71.457
Subtotal Delivery Service	**$497.034**	***$502.683***
Total	**$4,687.658**	**$4,693.307**

Table 14-2. Summary of GHG Costs and Revenue Allocation.

Description	**SCE Proposed**	**Commission Adopted**
2020 GHG Direct Costs (in F&PP resource costs)	$251.256	$251.256
2020 GHG Allowance Revenue Return		
2019 GHG Allowance Revenue True-Up	-$12,316	-$12.316
2020 GHG Allowance FF&U	-$5.163	-$5.163
2020 GHG Allowance Revenues	-$453.575	-$453.575
• 2019 SOMAH	$45.400	$45.400
• *2017-19 SB 92 SOMAH True-Up*[197]	N/A	*$5.648*
• CEOP	$10.000	$10.000
• DAC-GT and CSGT	$2.431	$2.431
• DAC-SASH	$4.600	$4.600
• EITE Customer Return	-$27.671	-$27.671
• Small Business Return	-$12.917	-$12.917
• California Climate Credit Return	-$367.824	*-$362.176*
Subtotal Net GHG Allowance Return (in F&PP Delivery Charge)	-$408.413	*-$402.764*
Residential Climate Credit Biannual Return	$40	*$39.34*

SCE shall file a Tier 1 advice letter to implement the rate changes adopted in this decision.

15. Reduction of Comment Period

Pursuant to Rule 14.6(b), all parties stipulated to reduce the 30-day public review and comment period required by Pub. Util. Code § 311 to 13 days. Opening comments were filed by _____ on January 2, 2020, and reply comments were filed by _____ on January 7, 2020.

[197] True-up of forecast versus recorded 10% GHG allowance revenue for record years 2017-2019.

16. Assignment of Proceeding

Martha Guzman Aceves is the assigned Commissioner and Zita Kline is the assigned Administrative Law Judge and Presiding Officer in this proceeding.

Findings of Fact

1. SCE's total forecast ERRA revenue requirement for 2020 is $4,687.658 million.

2. SCE predicts a 3.6 percent decrease in forecast bundled energy sales from 2019 to 2020, from a total retail sales forecast of 83,383 GWh in 2019 to 82,223 GWh in 2020.

3. SCE forecasts a decrease in 0.6 percent increase in total electricity customers from 5,159.092 million in 2019 to 5,192.394 million in 2020.

4. SCE's UOG and Purchased Power contracts in 2020 consist of 1,176 MW nameplate capacity of hydroelectric power, 91 MW of solar photovoltaic resources, 11,292 MW of CHP and renewables projects resources and 245 MW of natural gas resources.

5. SCE's preliminary forecast does not include the statewide increase in the DA load expected to start in 2020, but it includes CCAs that meet the following criteria 1) filed a binding notice of intent to begin CCA service, 2) filed an initial RA filing, 3) started CCA service and 4) formally submitted an April RA forecast pursuant to Pub. Util. Code § 380.

6. SCE executed two inter-utility contracts for 2020, consisting of 1) an entitlement of 280.245 MW of contingent capacity and 238.16 GW of firm energy through a contract with WAPA and 2) 3 MW of energy from the Azusa Powerhouse through a corporate grant deed.

7. SCE forecast F&PP costs associated with three types of contract for new generation resources in 2020, including 1) 2006-2007 CAM contracts, 2) Generic

and Bilateral contract to meet 2020 system capacity requirements and 3) contracts used to meet local capacity requirements.

8. SCE forecast $80.092 million in costs for behind the meter resources procured through the Preferred Resources Pilot #2 and for net costs associated with biomass generation associated, which are recoverable through the Tree Mortality Non-Bypassable Charge.

9. SCE forecast 3,552,537 KWh of participation through the GTSR program.

10. SCE forecast $4.232 million in spent nuclear fuel costs at SONGs in 2020.

11. SCE forecast $44.2 million in costs for nuclear fuel expenses and $36,231 in interim used fuel expenses at PVNGS in 2020.

12. SCE forecast $7.895 million to provide electricity service to Catalina Island, which includes the $6.711 million in diesel fuel costs and $1.184 million for propane costs.

13. SCE forecast costs for 5 GW of energy reductions in 2020 to provide economic demand response programs, including the Summer Discount Plan, Capacity Bidding Program, Critical Peak Pricing, and Smart Energy Programs.

14. SCE forecast F&PP costs in 2020 associated with the net CAISO costs of grid management charges, Federal Energy Regulatory Commission fees, congestion fees, Congestion Revenue Rights actions-related CAISO costs, ancillary services, CAISO uplist costs, Standard Capacity Product costs, and other non-energy related CAISO costs.

15. SCE forecast 2020 hedging costs for energy-related transaction fees and option premiums for hedging SCE's open energy position in workpapers for 2020.

16. SCE forecast $1,200 in 2020 costs associated with natural gas delivery to SCE's UOG fuel cells at UC Santa Barbara and California State University at San Bernardino.

17. SCE has a $3 billion multi-year revolving credit facility, also called the "revolver," to serve short-term borrowing requirements.

18. SCE's forecast costs associated with the revolving credit facility in workpapers for 2020, including 1) upfront costs and fees for the extension, 2) $20,000 administrative fee, 3) 17.5 basis point annual facility fee, 4) 107.5 basis point participation fee on any outstanding letters of credit, 5) 20 basis point issuer fee on any letters of credit, and 6) London Inter-Bank Offered Rate plus 107.5 basis points borrowing (loan) rate.

19. SCE forecast fuel inventory carrying costs for nuclear, natural gas, diesel and propane in workpapers for 2020.

20. SCE forecast GHG procurement compliance carrying costs for 2020, which SCE estimates using historical GHG inventory balances and the ERRA balancing account interest rates in workpapers for 2020.

21. SCE forecast the carrying costs associated with SCE's collateral requirements necessary to procure power in workpapers for 2020.

22. SCE has a 2019 revenue balance of $17.452 million in the ERRA BA.

23. D.19-10-039 requires SCE to return $54.477 million in revenue to 1) bundled service customers through the 2019 ERRA BA and 2) 2017 vintage customers through the 2017 vintage customer subaccount of the Portfolio Allocation BA, on a pro rata basis.

24. SCE has a 2019 revenue requirement of $1.558 million in Litigation Costs TA subaccount of the Energy Settlement MA.

25. SCE has a 2019 revenue requirement of $476.655 million in the Portfolio Allocation BA.

26. The 2019 forecast and 2019 true-up market price benchmarks for calculating the market value of SCE's PCIA-eligible portfolio are as follows:

Market Price Benchmarks	**2019 ERRA Forecast November 2018**	**2019 ERRA True-Up November 2019**
Energy Index	$41.97/MWh	N/A (use actuals)
RPS Adder	$18/MWh	$16.44 MWh
RA Adder • System • Local • Flexible	 • $37.08/kW-yr • $37.08/kW-yr • N/A	 • $33.24/kW-yr • $44.64/kW-yr • $33.36/kW-yr

27. A true-up of the energy value of SCE's 2019 PCIA market portfolio using actual transacted prices reduced the market value of SCE's market portfolio by $405.20 million.

28. The average market value of transacted volumes in SCE's 2019 market portfolio was $30.50/MWh.

29. The average weighted value of SCE's revenues by resource is as follows:

Technology	**Weighted Average Day-Ahead Market Revenue ($/MWh)**
Gas	45.79
BioGas/BioMass	34.83
Geothermal	33.40
Other	33.37
Nuclear	32.91
Wind	31.45
Hydroelectric	29.56
Solar	23.11
Total	**30.50**

30. SCE offered RECs for sale in the following auctions: 1) September 27, 2018 solicitation for 2019 and 2020 vintage RECs, 2) April 17, 2019 solicitation for 2019,

2020 and 2021 vintage RECs and 3) September 4, 2019 solicitation for 2019, 2020 and 2021 vintage RECs.

31. The Commission approved SCE's 2019 REC solicitations in AL 3941-E, AL 4064-E and 4109-E.

32. SCE treated and local capacity in excess of a 100 MW per local area buffer as system RA for the purpose of determining its RA market value.

33. A true-up of the RA value of SCE's market portfolio increased SCE's 2019 market portfolio RA value by $2.513 million.

34. In November 2019, SCE had 1,396 MW of excess RA capacity, of which 90% were either sold or forecast sold in 2020.

35. SCE valued 13.96 MW of RA capacity at $0.

36. SCE calculated the 2019 forecast PCIA values using system-level billing determinants.

37. Between January 1, 2019 and May 31, 2019, SCE collected the 2018 PCIA rates, which were lower than 2019 PCIA rates.

38. SCE began collecting 2019 PCIA rates starting on June 1, 2019.

39. SCE calculated the 2020 true-up PCIA values using vintage-level billing determinants.

40. SCE included a one-time credit of $101.691 million to the 2019 Portfolio Allocation BA true-up pursuant to D.19-05-020.

41. SCE has a 2019 revenue requirement of $92.461 million in the New System Generation BA.

42. SCE has a 2019 revenue requirement of $71.457 million in the Tree Mortality Non-Bypassable Charge BA for record years 2017-2019.

43. SCE has a GHG allowance revenue refund of $402.764 million, consisting of 1) a refund of $471.054 million in net 2020 GHG auction proceeds, 2) a cost of

$252,902 in outreach and administrative expenses and 3) a cost of $68.036 million in Clean Energy and EE programs.

44. SCE embedded the direct costs of GHG in its F&PP revenue requirement, which will be tracked in the ERRA BA, the Portfolio Allocation BA, the GTSR BA and the New System Generation BA.

45. SCE incurs indirect GHG costs for its bundled service customers embedded in the price of power purchased on the market or through contracts that do not include GHG settlement terms.

46. SCE forecast its 2020 GHG allowance revenue using a forecast proxy price of $18.36/MT.

47. SCE was allocated 24,704,540 allowances by ARB in 2020.

48. SCE's forecast revenue proceeds from GHG allowances granted by ARB in 2020 is $471.054 million, which includes a $5.162 million refund in 2020 FF&U, $12.316 million in overcollected funds from 2019 and $453.575 million in 2020 forecast GHG auction proceeds.

49. SCE's 2020 forecast administrative and customer outreach expenses to be set aside is $252,902.

50. SCE's 2020 forecast SOMAH program funding to be set aside is $45.358 million.

51. SCE's 2017-2019 SB 92 True-Up of SOMAH Forecast and Actual GHG revenues is $31.794 million, with $5.648 million set aside in this 2020 ERRA forecast and the remainder set aside from available funding for clean energy and energy efficiency programs through 2030.

52. SCE can release SOMAH funding to the SOMAH program administrator on a quarterly basis as needed to prevent waitlists in the SOMAH program.

53. SCE's 2020 forecast DAC-SASH program funding to be set aside is $4.6 million.

54. SCE's 2020 forecast DAC-GT and CSGT program funding to be set aside is $2.431 million.

55. SCE's 2020 forecast CEOP program funding to be set aside is $10 million.

56. SCE's 2020 forecast EITE customer return is $27.671 million.

57. SCE's 2020 forecast Small Business Volumetric Return is $12.917 million.

58. SCE's 2020 forecast semi-annual Residential California Climate Credit is $39.34 per household, based on a forecast of 4,602,928 eligible.

59. SCE's 2020 forecast Generation Service revenue requirement is $4,190.624 million, which will be allocated in balancing accounts as follows:

Generation Service Revenue Requirement - Description	**Forecast Cost (millions)**
Fuel and Purchased Power Costs (including GHG costs)	
• ERRA BA-related	$2,311.963
• Portfolio Allocation BA-related	$1,415.868
• Green Tariff Shared Renewables BA-related	$2.032
2019 ERRA BA True-up	-$17.452
2019 Portfolio Allocation BA True-Up	$476.655
2019 Energy Settlement MA	$1.558
Total Generation Service	**$4,190.624**

60. SCE's 2020 forecast Delivery Service revenue requirement is $511.683 million, which will be allocated as follows:

Delivery Service Revenue Requirement - Description	**Forecast Cost (millions)**
New System Generation	
• NSG Fuel and Purchased Power 2020 Forecast	$654.659
• NSG Balancing Account 2019 True-Up	$92.461
Spent Nuclear Fuel	$4.382
Distribution Rate Component	
• Base Revenue Requirement BA-D F&PP 2020 Forecast	$11.396

• GHG Allowance Revenues 2020 Forecast	*-$402.764*
Public Purpose Programs Charge • Public Purpose Program Charge F&PP (includes Tree Mortality Non-Bypassable Charge (2020) and LCR-Public Purpose Program) • Tree Mortality Non-Bypassable Charge BA (2017-2019 True-Up)	 $80.092 $71.457
Total Delivery Service	***$511.683***

61. SCE's 2020 PCIA rates are calculated using vintage-level billing determinants.

62. SCE's 2020 forecast bundled rates are as follows:

Rate Schedule by Customer Group[198]	Total Delivery (¢/kWh)	Total Generation (¢/kWh)	Total (¢/kWh)
Domestic	**8.790**	**9.282**	**18.072**
• D	10.960	9.230	20.190
• D-CARE	3.049	9.385	12.434
• D-APS	8.534	9.396	17.930
• DE	5.801	9.382	15.183
• DM	13.454	9.422	22.876
• DMS-1	12.678	9.422	22.100
• DMS-2	10.739	9.421	20.160
Lighting-Small, Med. Power	**8.876**	**8.363**	**17.23**
• GS-1	8.652	9.044	17.696
• GS-2	9.221	8.426	17.648
• TC-1	11.474	7.024	18.498
• TOU-GS	8.364	7.562	15.926
Large Power	**5.358**	**6.670**	**12.028**
• TOU-S	7.102	7.155	14.257
• TOU-P	6.187	6.695	12.882
• TOU-T	2.739	6.237	8.975
• TOU-8-S-S	6.991	7.058	14.048
• TOU-8-S-P	6.944	7.146	14.090
• TOU-8-S-T	2.958	5.890	8.848
Agricultural & Pumping	**6.792**	**7.019**	**13.811**
• TOU-PA-2	7.289	7.502	14.791
• TOU-PA-3	6.149	6.395	12.544
Street & Area Lighting	**13.481**	**4.653**	**18.134**
• LS-1	29.188	4.639	33.827
• LS-2	9.105	4.633	13.738
• LS-3	3.854	4.681	8.534

[198] See Appendix A for acronym list explaining customer rate groups.

• DTL	25.900	4.639	30.539
• OL-1	21.294	4.639	25.933
Average Rate - All Groups	**7.929**	**8.210**	**16.139**

63. All three large energy utilities experienced PSPS events in 2019. The question of whether and how each utility's revenue collections were impacted by any PSPS events has not previously been examined.

64. Challenges to facts supporting SCE's proposed 2020 forecast of fuel and purchased power prices; natural gas prices; electricity prices; GHG costs and proceeds; demand response costs; bundled customer electric sales and year-end balancing accounts are waived by parties in this proceeding by virtue of stipulation to waive evidentiary hearing.

65. SCE, Public Advocates Office and Sunrun requested the admittance of their exhibits into evidence pursuant to Rule 13.8.

66. GO 66-D and D.10-14-033 provide definitions and guidance regarding public and confidential records provided to and requested from the Commission.

67. By D.06-06-066, the Commission implemented SB 1488, which required that the Commission examine its practices regarding confidential information, as it applies to the confidentiality of electric procurement data (what may be market sensitive) submitted to the Commission.

68. SCE and Public Advocates Office request that certain selected exhibits be given confidential treatment pursuant to GO 66-D and D.06-06-066.

69. SCE requests that the confidential testimony and certain exhibits included with its 2020 Forecast Application and November Update be filed under seal pursuant to Rule 11.4.

70. We have granted similar requests for confidential treatment in the past.

Conclusions of Law

1. The Commission should find reasonable and adopt SCE's updated 2020 ERRA forecast revenue requirement of $4,702.307 million.

2. SCE's forecast of fuel and purchased power prices; natural gas prices; electricity prices; GHG costs and proceeds; demand response costs; bundled customer electric sales and year-end balancing account balances are reasonable, as modified in this decision.

3. D.18-10-019 and D.19-10-001 directed a 2019 true-up of the Portfolio Allocation BA and proposed the methodology for calculating the true-up.

4. SB 92 requires electric utilities to set aside 10% of annual greenhouse gas revenue up to a combined total revenue of 100 million annually for the SOMAH program.

5. It is reasonable to set-aside the SOMAH program set aside for a legislative fiscal year allocation annually through the ERRA forecast using the forecast year GHG allowance revenues.

6. SB 92 applies to AB 693 retroactively to clarify the appropriate set-aside amount for the SOMAH program from GHG allowance revenue.

7. Applying SB 92 retroactively to incur a true-up which reduces the annual GHG allowance revenue below 85 percent requires a finding of need.

8. The Commission does not find a need to return GHG allowance revenue funds below the 85 percent requirement in Pub. Util. Code 748.5(c) in this ERRA Forecast proceeding.

9. SCE should release SOMAH funding to the project administrator on a quarterly basis as needed to prevent wait lists in the SOMAH program.

10. It is reasonable to apply the FY 2016-2019 SOMAH program true-up from available funds in this ERRA forecast proceedings, as well as future ERRA forecast proceedings through 2030.

11. SCE should modify its 2020 rates and its California Climate Credit to account for the additional $5.648 million set aside for the SOMAH program in this decision.

12. The Commission should consider any potential impact of PSPS events on revenue collections and whether sales forecast adjustments or other adjustments to revenue collections are appropriate in ERRA compliance applications.

13. SCE's request, that the public and confidential versions of its testimony and exhibits included with its application be received into evidence, should be granted.

14. SCE's request for confidential treatment of unredacted versions of SCE's Testimony and Exhibits included with its Application and November Update should be granted pursuant to Rule 11.5, GO 66-D and D.14-10-033.

15. Advice Letters to implement changed tariff sheets in accordance with this Decision should be filed as Tier 1 Advice Letters.

16. This application should be closed.

O R D E R

IT IS ORDERED that:

1. Southern California Edison Company (SCE) is authorized to recover a total 2020 Energy Resource Recovery Account (ERRA) electric procurement cost revenue requirement forecast of $4,693.307 million, consisting of both a generation service and a delivery service component.

Within SCE's proposed generation service, SCE is authorized to recover a total of $3,729.863 million in fuel and purchased power (F&PP) costs and transfer

the following account balances: -$17.452 million for the 2019 ERRA Balancing Account (BA), $476.655 million for the Portfolio Allocation BA, $1.558 million for the Energy Settlements Memorandum Account.

Within SCE's proposed delivery service, SCE is authorized to recover a total of $670.437 million in F&PP costs, consisting of the following: 1) $645.659 million for the New System Generation, 2) $4.382 million in spent nuclear fuel costs and $11.396 million for economic demand response programs and 3) $80.092 million for both the Tree-Mortality Non-Bypassable Charge and the SCE's Preferred Resources Pilot #2. SCE is also authorized to transfer the following account balances: 1) $92.461 million for the New System Generation BA and 2) $71.457 million for the Tree Mortality Non-Bypassable Charge BA.

SCE's is authorized to reconcile greenhouse gas (GHG) costs, revenues and requirements as follows: 1) recover a revenue requirement of $251.256 million in GHG Cap-and-Trade costs, 2) distribute 2020 GHG forecast auction proceeds of $453.575 million ($471.054 million net auction proceeds accounting for overcollections and Franchise Fees and Uncollectibles), with $402.764 million being returned to customers after setting aside funding for clean energy and energy efficiency programs, outreach and administrative expenses.

2. This decision authorizes the forecast amount of $39.34 per household for the California Climate Credit program to be returned to residential customers beginning in 2020; SCE may elect to return $39 per household in order to maintain the California Climate Credit as a whole dollar number.

3. Southern California Edison Company's rate component for the Green Tariff Shared Renewables Program is approved.

4. Southern California Edison Company (SCE) must return $402.764 million in net Greenhouse Gas proceeds to SCE's customers.

5. Southern California Edison Company shall include charges incurred in the Tree Mortality Non-Bypassable Charge Balancing Account from 2017-2019 in the 2019 Energy Resource Recovery Account Compliance Application for reasonableness review.

6. Southern California Edison Company shall transfer Solar on Multifamily Affordable Housing (SOMAH) funding to the program administrator on a quarterly basis as needed to prevent wait lists in the SOMAH program.

7. Southern California Edison Company shall set aside an additional $5.648 million in Solar on Multifamily Affordable Housing funding in the 2020 ERRA forecast.

8. Southern California Edison Company shall set-aside an additional $26.147 million in Solar on Multifamily Affordable Housing funding from available funding for Clean Energy and Energy Programs, pursuant to Pub. Util. Code § 748.5(c), in future ERRA forecast proceeds through 2030.

9. Southern California Edison Company's (SCE) request to treat as confidential exhibits SCE-1C, SCE-3C, SCE-06C and SCE-06C ERRATA V2 as well as pertinent testimony thereunder, is granted for a period of three years from the date of this order. During this three-year period, this information shall not be publicly disclosed except on further Commission order or Administrative Law Judge ruling. If SCE believes that it is necessary for this information to remain under seal for longer than three years, it may file a new motion showing good cause for extending this order by no later than 30 days before the expiration of this order.

10. Southern California Edison Company shall file a Tier 1 Advice Letter (AL) and revised tariff sheets within 15 days of the issuance of this decision to

implement the rate changes authorized by this decision. The AL shall include changed tariff sheets and supporting documentation for:

(a) Residential rate schedules (including master-metered rate schedules) to include the authorized 2020 Climate Credit amount;

(b) Small business rate schedules to include the volumetric dollars per kilowatt hour greenhouse gas rate offset for small business customers; and

(c) The amount approved in Ordering Paragraph 1.

11. Southern California Edison Company shall include in its ERRA Compliance application for 2019 an accounting of the Public Safety Power Shutoff (PSPS) events that occurred in its service territory in that calendar year and how the PSPS impacted its revenue collections.

12. All rulings issued by the assigned Commissioner and Administrative Law Judge (ALJ) are affirmed herein; and all motions not specifically addressed herein or previously addressed by the assigned Commissioner or ALJ, are denied.

13. The determination made in the Assigned Commissioner's Scoping Memo and Ruling that hearings were necessary is changed to no hearings necessary.

14. Application 19-06-002 is closed.

This order is effective today.

Dated _____, at San Francisco, California.

APPENDIX A

Acronym List

Acronym	Description
AB	Assembly Bill
AL	Advice Letter
ALJ	Administrative Law Judge
ARB	California Air Resources Board
BA	Balancing Account
Bio-RAM	Bio-Fuel Renewable Auction Mechanism
BRRBA - D	Base Revenue Requirement Balancing Account - Distribution
CA	Community Aggregation
CAISO	California Independent System Operator
Cal Advocates	The Public Advocates Office of the Public Utilities Commission
CAM	Cost-Allocation Mechanism
CAM	Cost Allocation Mechanisms
CCA	Community Choice Aggregation
CCEA	California Choice Energy Authority
CDWR	California Department of Water and Resources
CEOP	Clean Energy Optimization Pilot
CHP	Combined Heat and Power
CPA	Clean Power Alliance of Southern California
CRS	Cost Responsibility Surcharge
CSGT	Community Solar Green Tariff
CTC	Competition Transition Charge
D	Domestic Service
DA	Direct Access
DACC	Direct Access Customer Coalition
DAC-GT	Disadvantaged Communities – Green Tariff
DAC-SASH	Disadvantaged Communities – Solar Affordable Housing

D-APS	Domestic Automatic Powershift Withdrawn 2809-E 12/9/12
D-CARE	Domestic Service – California Alternate Rates for Energy
DE	Domestic Service to Utility Employees
DM	Domestic Service Multifamily Accommodation
DMS -1	Domestic Service, Multifamily Accommodation - Submetered
DMS -2	Domestic Service, Mobilehome Park Multifamily Accommodation, Submetered
DWL	Residential Walkway Lighting
ECAC	Energy Cost Adjustment Clause
ED	Energy Division
EE	Energy Efficiency
EITE	Emissions Intensive and Trade Exposed
ERRA	Energy Resource Recovery Account
ERRA BA	Energy Resource Recovery Account Balancing Account
ESMA	Energy Settlement Memorandum Account
F&PP	Fuel and Purchased Power
FF&U	Franchise Fees and Uncollectibles
FOF	Finding of Fact
FY	Fiscal Years
GHG	Greenhouse Gas
GO	General Order
GRC	General Rate Case
GRC	General Rate Case
GS-1	General Service 1
GS-2	General Service 2
GTSR	Green Tariff Shared Renewables Program
GTSR BA	Green Tariff Shared Renewables Program Balancing Account
GWh	Gigawatt Hours
LCR	Local Capacity Requirement
LCR – PPP	Local Capacity Requirement – Public Purpose Program

LS-1	Lighting – Street and Highway 1
LS-2	Lighting – Street and Highway 2
LS-3	Lighting – Street and Highway 3
MA	Memorandum Account
MPB	Market Price Benchmark
MT	Metric Ton
MW	Megawatts
MWh	Megawatt Hours
NSG	New System Generation
OL-1	Outdoor Lighting 1
OP	Ordering Paragraph
PCIA	Power Charge Indifference Adjustment
PHC	Pre-Hearing Conference
PRP	Preferred Resources Pilot
PVNGS	Palo Verde Nuclear Generating Station
PSPS	Public Safety Power Shutoff
RA	Resource Adequacy
REC	Renewable Energy Credits
RPS	Renewable Portfolio Standard
SB	Senate Bill
SCE	Southern California Edison
SOMAH	Solar on Multifamily Affordable Housing
SONGS	San Onofre Generating Station
SPVP	Solar Photovoltaic Program
TA	Tracking Account
TC-1	Traffic Control 1
TMNBC	Tree-Mortality Non-Bypassable Charge
TMNBC BA	Tree-Mortality Non-Bypassable Charge Balancing Account
TOU-8-P	Time-of-Use, General Service – Primary Distribution
TOU-8-S	Time-of-Use, General Service – Large Standby

TOU-8-S-P	Time-of-Use, General Service – Large Standby – Primary Distribution
TOU-8-S-S	Time-of-Use, General Service – Large Standby – Secondary Distribution
TOU-8-S-T	Time-of-Use, General Service – Large – Standby - Tiered
TOU-8-T	Time-of-Use, General Service – Large – Tiered
TOU-GS	Time-of-Use General Service
TOU-PA-2	Time-of-Use Agricultural & Pumping 2
TOU-PA-3	Time-of-Use Agricultural & Pumping 3
UOG	Utility-Owned Generation
WAC	Weighted Average Cost
WAPA	Western Area Power Administration

APPENDIX B

Exhibit List

Exhibit	Description
SCE-01	ERRA 2020 Forecast of Operations (Public Version) dated June 3, 2019
SCE-01A	ERRA 2020 Forecast of Operations ERRATA dated June 3, 2019
SCE-01C	ERRA 2020 Forecast of Operations (Confidential Version) dated June 3, 2019
SCE-02	ERRA 2020 Forecast of Operations Witness Qualification and Declarations RE: Confidentiality dated June 3, 2019
SCE-03	ERRA 2020 Forecast of Operations (Supplemental Testimony), dated July 5, 2019
SCE-04	ERRA 2020 Forecast of Operations (Supplemental Testimony) (Public Version), dated September 13, 2019
SCE-05	Rebuttal Testimony of SCE in support of its ERRA 2020 Forecast of Operations dated October 15, 2019
SCE-06	Updated Testimony ERRA 2020 Forecast of Operations , dated November 8, 2019
SCE-06C	Updated Testimony ERRA 2020 Forecast of Operations (Confidential Version) dated November 15, 2019
SCE-06 ERRATA V2	ERRATA – Updated Testimony ERRA 2020 Forecast of Operations (Public Version) dated November 15, 2019
SCE-06C ERRATA V2	ERRATA – Updated Testimony ERRA 2020 Forecast of Operations (Confidential Version) dated November 15, 2019
CalPA-01	Testimony on SCE Application for a Commission Finding that its Forecast 2020 ERRA Procurement Plan and Associated Revenue Requirement is Reasonable and for Authorization to Recover that Revenue Requirement from Rates dated September 30, 2019
SR-1	Testimony of Kelly Knutsen PHD, on Behalf of Sunrun Inc, dated October 1, 2019

CalChoice-1	Southern California Edison Company ("SCE") Responses to CalChoice Data Requests dated October 21, 2019.